

# Uses of Funding: Status Reports by Sector

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## INTRODUCTION

In its January 2006 Report, the Special Inspector General for Iraq Reconstruction (SIGIR) focused its first status reports on the heavy construction sectors—electricity, oil and gas, and water. This Report updates those reviews and features initial reports on four additional sectors: security and justice; health care; transportation and communications; and democracy, education, and private sector development.

These status reports examine three aspects of reconstruction—activities, outputs, and outcomes:

- *activities*: the reconstruction projects themselves (an electric turbine, a water treatment plant, a primary health care center, a training program for teachers, etc.)
- *outputs*: the results of the reconstruction projects (increased electricity generation, increased capacity to treat wastewater, more Iraqis with access to health care, more trained teachers, etc.)
- *outcomes*: the potential effects of the project outputs for the people of Iraq (hours of power, more Iraqis with access to clean



Iraqi children with U.S. Army Corps of Engineers staff and contractor in front of newly built school

water, more Iraqi children vaccinated for polio, higher literacy rates, etc.)

Outcomes are not always easy to determine in the short run. For example, the effect on infant mortality rates of new primary health care facilities may be measurable only years later.

## Observations

Based on the following sector reviews, SIGIR makes the following general observations:

- As a program, the Iraq Relief and Reconstruction Fund (IRRF) 2 is in its close-out phase. All of the funds have been allocated, 88% of these funds have been obligated to contracts, and more than 60% have been expended. The focus of the program is now on completing assigned work in a timely and efficient manner. See Figure 2-1 for an overview of reconstruction status.
- Many completed IRRF projects have delivered positive results, but there exists a gap between U.S. project outputs and the delivery of essential services to Iraqis.

This gap narrowed somewhat in the last quarter. For example, the hours of power in all areas of the country, except Baghdad, have surpassed pre-war levels. Also, U.S. projects have provided potable water to an additional 3.1 million people and sewerage services for an additional 5.1 million. And oil production has advanced above the lows of last quarter.

- The pace of project completions and IRRF expenditures in the three critical infrastructure sectors—electricity, oil and gas, and water—increased from last quarter. In aggregate, however, projects in these sectors are still less than 50% complete. Assuming that the pace of project completion of the last six months continues, construction will not be completed in these three key sectors for nearly two more years. The primary IRRF implementing agencies—the U.S. Army Corps of Engineers Gulf Region Division (GRD) and the U.S. Agency for International Development (USAID)—predict varying completion dates for construction.

Figure 2-1

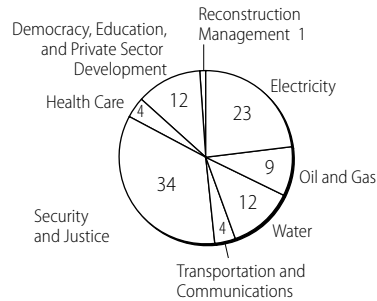
## OVERVIEW OF RECONSTRUCTION PROGRESS

As of March 31, 2006

### SECTOR SHARES OF IRRF FUNDS

% of \$18.439 Billion

Source: DoS Iraq Weekly Status Report, 03/29/06

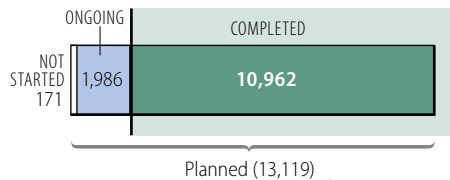


Note: Shares may not add to 100% due to rounding.

### STATUS OF IRRF PROJECTS

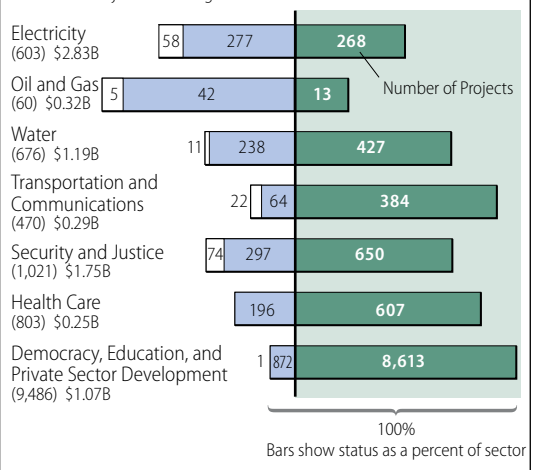
Number of Projects

Source: IRMS-IRMO Rollup File, 03/31/2006



### Status of Projects by Sector

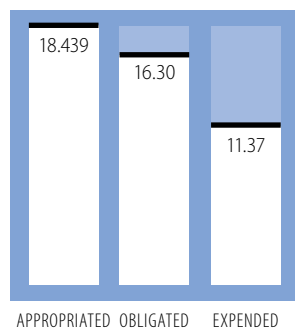
Number of Projects and Budgeted Cost in Billions



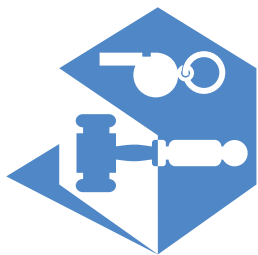
### STATUS OF IRRF FUNDS

\$ Billions

Source: DoS Iraq Weekly Status Report, 03/29/06







## STATUS OF THE SECURITY AND JUSTICE SECTOR

The SIGIR security and justice sector review examines U.S. spending to support Iraq's military forces, police, and justice infrastructure.<sup>1</sup>

Based on available data, SIGIR finds that the security and justice sector in Iraq has shown steady development over the past three years. The overall security situation, however, remains volatile. Insurgent attacks continue to disrupt the reconstruction process by intermittently targeting key infrastructure facilities and increasingly exploiting sectarian divisions in Iraqi society. Because law and order are essential to the successful development of a democratic state, Iraq must field cohesive military and police forces under the control of capable Ministries of Defense and Interior.

In addition to covering IRRF-funded activities in this sector, SIGIR also presents information on the Iraq Security Forces Fund (ISFF).

These are the highlights of this security and

justice sector report:

- More U.S. funds have been devoted to security and justice than any other reconstruction sector. A total of \$11.6 billion has been allocated, combining funds from IRRF 2 and ISFF.
- By the end of this quarter, 82% of the \$6.35 billion IRRF allocation had been expended, and 31% of ISFF funds have been expended. (See Figures 2-3 and 2-4.)
- Approximately 250,500 military and police personnel have reportedly been trained and equipped.
- More than 600 facilities have been completed—police stations, fire stations, courts, border forts, and army facilities.

### Activities in the Security and Justice Sector

On October 1, 2005, the primary responsibil-

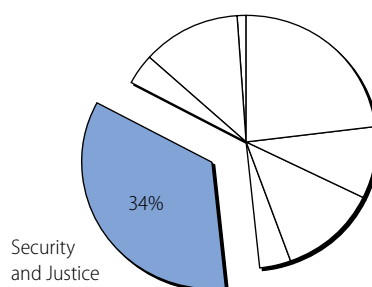
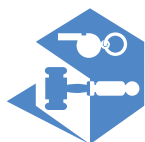


Figure 2-2  
**SECURITY AND JUSTICE SECTOR  
AS A SHARE OF IRRF FUNDS**  
% of \$18.439 Billion

Source: DoS *Iraq Weekly Status Report*, 03/29/06



## SECURITY AND JUSTICE

ity for developing the Ministry of Defense and Ministry of Interior was transferred from the Iraq Reconstruction Management Office (IRMO) to the Multi-National Security Transition Command-Iraq (MNSTC-I). Under IRMO and now MNSTC-I, the Civilian Police Assistance Training Team (CPATT) has managed the training and equipping of Iraq's police forces for the Ministry of Interior. CPATT has also managed initiatives to build capacity within the Ministry of Interior.<sup>2</sup>

The MNSTC-I, working with the Ministry of Defense, has begun to emphasize improving Iraqi logistics capabilities and leadership. Also, the Commander, Multi-National Force-Iraq (MNF-I), designated 2006 as the "Year of the Police,"<sup>3</sup> and the Administration affirmed that one of the major U.S. reconstruction goals in 2006 is "to accelerate the training of the Iraqi police."<sup>4</sup>

## Funding Status of the Security and Justice Sector

As of March 31, 2006, more than 80% of IRRF 2 funds for military and police forces had been expended, although only 30.5% of ISFF funding was expended (ISFF funds began to be expended later than IRRF funds).

Figures 2-3 and 2-4 show the status of IRRF and ISFF funding for the security and justice sector.

The Administration also submitted an FY 2006 supplemental request that includes \$3.7 billion to continue to train, equip and build facilities for the Iraqi army and police and \$962 million in foreign assistance funding to fulfill goals related to security.<sup>6a</sup>

## Key Programs Completed and Underway

At the time of publication, a comprehensive list of projects in this sector could be obtained

Figure 2-3

### STATUS OF IRRF FUNDS IN THE SECURITY AND JUSTICE SECTOR

\$ Billions

Source: DoS *Iraq Weekly Status Report*, 03/29/06

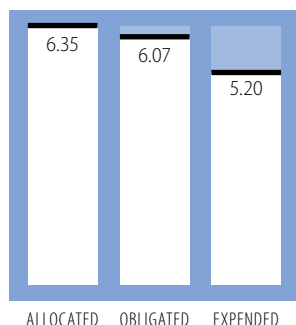
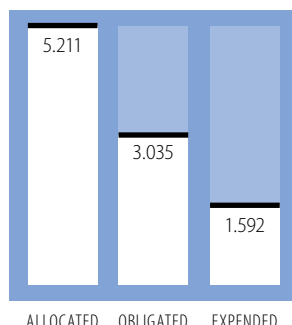


Figure 2-4

### STATUS OF ISFF FUNDS IN THE SECURITY AND JUSTICE SECTOR

\$ Billions

Source: DoD *Weekly Financial Update*, 04/05/06





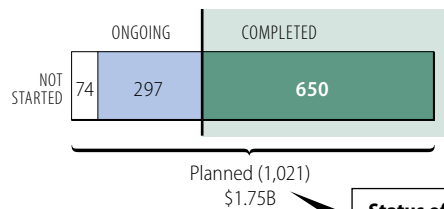
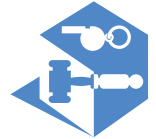


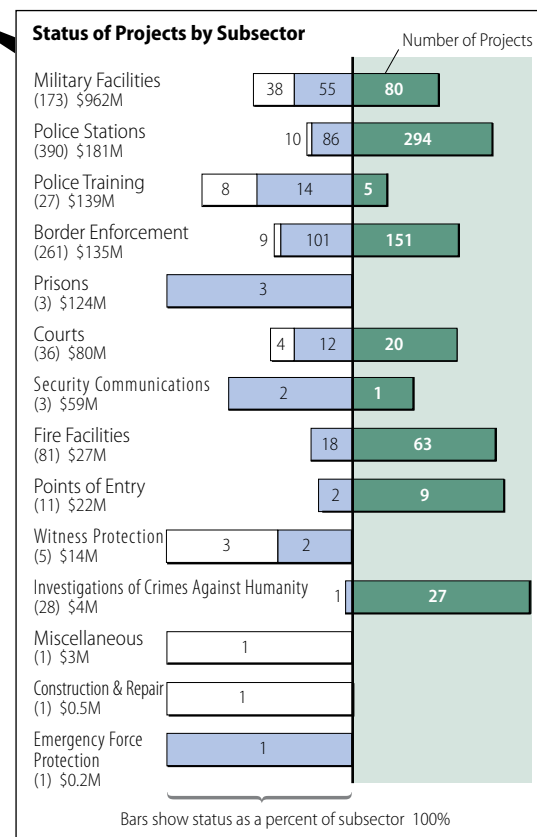
Figure 2-5  
**STATUS OF SECURITY AND JUSTICE PROJECTS**  
Number of Projects  
Source: IRMS–IRMO Rollup File, 03/31/06

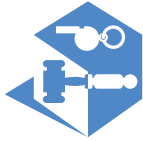
only for activities funded by IRRF 2. Projects focus on facilities construction and refurbishment. For a detailed list of projects funded by IRRF 2, see Figure 2-5.

## FACILITIES CONSTRUCTION

In this sector, IRRF 2 has funded construction and rehabilitation of border forts, fire stations, police stations, public safety training academies, prisons and corrections facilities, courthouses, and witness protection facilities.<sup>9</sup> According to the Gulf Region Division and Project and Contracting Office (GRD-PCO), the last IRRF-funded construction project in the security and justice sector is scheduled to be completed by August 2007.<sup>10</sup> Figure 2-6 shows reconstruction activity in this sector by governorate.

Construction on the Provincial Police Headquarters in Mosul was 98% complete as of March 30, 2006.<sup>11</sup> Renovation of the Domies Police Station in Kirkuk is 99% complete and is expected to be finished by the end of April 2006.<sup>12</sup> This station will provide increased security to an economically crucial oil-producing region.





## SECURITY AND JUSTICE

Work continues on the Baghdad Police College (formerly the Baghdad Public Safety Training Academy), which will increase the Ministry of Interior's police training capacity. The project is 80% complete and is expected to be finished by July 2006.<sup>13</sup> Also, renovations on the Al-Zab Courthouse in Kirkuk, which began in October 2005, are 52% complete, with an estimated completion date of mid-August 2006.<sup>14</sup>

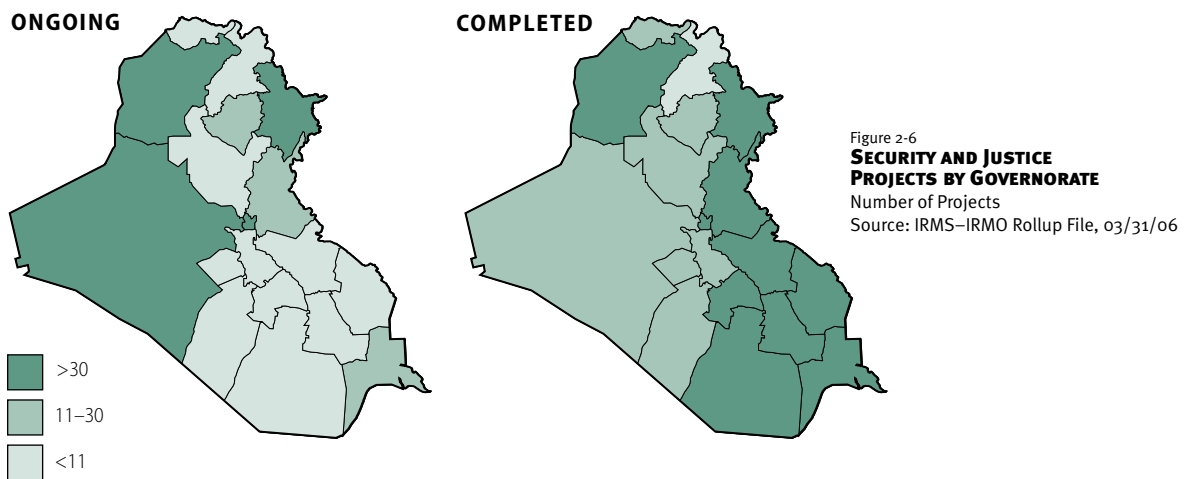
Progress on the Nassriya correctional facility, currently 28% complete, has been hampered due to inadequate workforce levels and security concerns at the site. This facility, expected to be completed in August 2006, is slated to have a capacity of at least 800 beds,

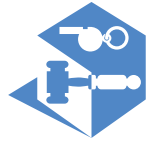
with the possibility of an additional 400 beds.<sup>15</sup>

Construction was also completed this quarter on these military facilities:

- Camp India Base, which will support 2,500 Iraqi soldiers in the 4<sup>th</sup> Brigade of the 1<sup>st</sup> Division
- Samawah, which will support 750 Iraqi soldiers in the 2<sup>nd</sup> Brigade of the 10<sup>th</sup> Division
- Naiad, which will support 250 Iraqi soldiers in the 1<sup>st</sup> Brigade Headquarters of the 8<sup>th</sup> Division<sup>16</sup>

In Section 3 of this Report, SIGIR presents findings from a series of inspections on construction projects in the security and justice sector. These findings range from a determina-





tion that sufficient work has been performed at the new Second Brigade Base in Kirkuk to poor workmanship at certain border forts along the Iraq-Iran border.

## INITIATIVES TO SUPPORT SECURITY AND JUSTICE DEVELOPMENT

Several initiatives are underway to promote oversight and transparency in the security and justice sector, including continued funding and development of the Commission on Public Integrity (CPI), which is tasked to detect and investigate illegal activities and organizations. The CPI has become a crucial component in combating corruption throughout Iraq, and it has several significant corruption investigations focusing on the Ministry of Defense. Other initiatives support Iraq's witness protection program—moving judges into specially constructed facilities and equipping and training personnel at both the CPI and the Central Criminal Court of Iraq (CCCI).<sup>17</sup>

A notable project to support public security initiatives in Iraq is the Advanced First Responder Network (AFRN), a national communications and dispatch system that will enable first responders to communicate with government officials during crises. The project is currently being closed out and will soon be turned over to the Ministry of Interior.<sup>18</sup> SIGIR is auditing this project and will report its findings next quarter.

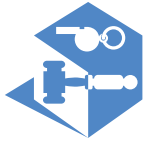
## Outputs of Programs Funded by IRRF 2 and ISFF

Approximately 250,500 Ministry of Defense and Ministry of Interior forces have been trained and equipped for counter-insurgency and police operations:

- 115,700 Iraqi Army, Navy, and Air Force personnel
- 134,800 police, highway patrol, and other Ministry of Interior forces<sup>19</sup>

The goal of the coalition and Ministry of Interior is to train and equip 195,000 personnel. MNSTC-I projects that this goal will be met by December 2006.<sup>20</sup> The force generation plan for the Ministry of Defense forces will be completed by mid-2006, with an end-strength of approximately 131,000 soldiers.<sup>21</sup> To determine the readiness of Iraqi security and police forces, the Multi-National Corps-Iraq uses the Transition Readiness Assessment (TRA) process.<sup>22</sup> These metrics may change over time as key personnel rotate, equipment is added or replaced, and the tempo of unit operations changes.<sup>23</sup>

Large-scale counter-insurgency initiatives this quarter demonstrated the growing capacity of Iraqi forces to operate successfully in the field. In March 2006, soldiers from the 6<sup>th</sup> and 9<sup>th</sup> Iraqi Army Divisions, with support from coalition forces, led Operation Glory Light, one of the largest operations of the last six months. Soldiers succeeded in taking control of an insurgent stronghold just south of Baghdad.<sup>24</sup>



## SECURITY AND JUSTICE

Security conditions have also affected reconstruction in this sector. On April 18, 2006, GRD-PCO reported that insurgents destroyed the Al Yusufiyah Police Station in the Baghdad governorate, which was 83% complete when the attack occurred.<sup>25</sup>

In January 2006, the Congressional Research Service (CRS) reported that fielding and equipping trained troops had received priority attention, but inadequate attention was paid to the ethnic and sectarian composition of those forces.<sup>26</sup> The coalition and Ministry of Defense have addressed this issue by increasing efforts to recruit in Sunni areas and to move soldiers away from their home areas to other parts of the country.

Ethnic and sectarian composition is also an issue for the police services. According to the DoS *Human Rights Report* for 2005, “the vast majority of human rights abuses reportedly carried out by government agents were attributed to the police.”<sup>27</sup>

### TRAINING INITIATIVES

To evaluate overall progress in this sector, SIGIR looked at a variety of tangible results, such as fielding troops and police officers, and also intangible results. For example, conditions in the Iraqi Corrections Service (ICS) prison system have significantly improved over the past year. Many ICS facilities meet most international penal standards, although none meet all of the standards.<sup>28</sup> Concerns have been aired, however, that government military and police forces may have participated in the

abuse, torture, and deaths of Iraqi civilians.<sup>29</sup> To address this problem, coalition and Iraqi officials are providing more professional training for Iraqi security forces. For a description of training programs and initiatives currently underway, see Table 2-1.

According to the DoS *Human Rights Report* for 2005, the Iraqi police had received relatively little training, and their effectiveness was seriously compromised by sectarian militia influences, corruption, and intimidation.<sup>30</sup> As of late February, however, DoS reports that more than 8,600 Iraqi police recruits were being trained, and an additional \$250 million in emergency funding has been requested to continue the training process.<sup>31</sup> One of the purposes of this training is to foster a better appreciation among security forces of the need to respect human rights.

### Outcomes of Programs Funded by IRRF and ISFF

Three challenges continue to limit positive outcomes in the security and justice sector. First, the Iraqi insurgency remains active. Second, ethnic and sectarian tensions continue to rise—especially between Sunnis and Shiites—inflamed by the attack on the Golden Mosque in Samarra on February 22, 2006. Third, criminal violence persists. According to the World Bank, Baghdad alone “records an average of 90 crime-related murders per 100,000 residents every month—three times higher than in most major cities in the world.”<sup>32</sup> Security conditions have delayed the transfer of security responsibilities to Iraqi forces, affected the pace of the



## SAMPLE OF TRAINING INITIATIVES, AS OF MARCH 31, 2006

PROGRAM	GOAL
Basic Police Academy (BPA)	More than 7,900 recruits completed the BPA program (10 weeks) during this quarter, and nearly 570 recruits graduated from the 3-week Transition Integration Program (TIP), which gives police officers under the Saddam regime skills training and instruction in human rights and rule of law.
6-month Police Officer Academy	For current police officers with higher education; 278 new police lieutenants graduated on March 30, 2006.
9-month Police Officer Academy	For current police officers; began in December with 300 cadets.
3-year Police Officer Academy	Will begin next quarter with an anticipated enrollment of 500-1,000 new officer candidates.
Former Officer Course (FOC)	Provides training in human rights, ethics, and counter-insurgency operations; 500 students completed the program during this reporting period.
Basic Officer Commissioning Course	77 officers graduated from this one-year course on January 19, 2006.

Sources: DoS *Section 2207 Report*, January 2006 and April 2006.

TABLE 2-1

reconstruction effort, and increased security costs.<sup>33</sup>

Notwithstanding these difficulties, Iraqi security forces are assuming responsibility for more demanding missions and making gradual progress toward operational independence.<sup>34</sup>

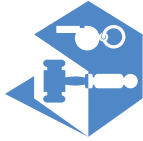
### MINISTERIAL CAPACITY DEVELOPMENT

In this sector, SIGIR notes that officials are now focusing on improving support functions and developing the capacity of the Ministries of Defense and Interior. For instance, the Iraqi Army is building ministerial capabilities and also increasing combat support and combat service support units to supplement the battalions.<sup>35</sup> Increasing command/control and logistics capabilities will better prepare Iraqi Security Forces to be self-reliant and

independent.

The Ministry of Interior is developing capabilities to better provide the growing number of police personnel in the field with logistical and administrative support. The Ministry of Interior employs a Qualifying Committee to help eliminate “ghost employees” who remain on the payroll but no longer work in the Ministry.

Absenteeism is another problem in the police force. This year, more International Police Liaison Officers are slated to deploy to stations around the country to train and mentor Iraqi police, which is expected to reduce absenteeism.<sup>36</sup> In early October, CPATT was designated to lead coalition initiatives to develop the capabilities of the Ministry of Interior. CPATT and the Police Partnership Program for the Ministry of Interior have realigned their



## SECURITY AND JUSTICE

organization into a single team consisting of integrated military, International Police Liaison Officers, International Police Trainers, and former IRMO personnel.<sup>37</sup>

### Infrastructure Security

Protecting Iraq's oil and gas and electricity infrastructures is a critical issue for the future of Iraq. In the second half of 2005, the oil industry lost 78% of potential export earnings in the north,<sup>38</sup> primarily because of attacks on the infrastructure. Task Force Shield was established in September 2003 to oversee the training and operation of 20,400 guards of the Iraqi Oil Protection Force (OPF) and the Iraqi Electrical Power Security Service (EPSS). An ongoing, classified SIGIR review will measure the success of U.S. and Iraqi officials in protecting the oil and electricity infrastructure.

### ACTIVITIES IN INFRASTRUCTURE SECURITY

Two entities are responsible for the security of Iraq's oil infrastructure—the Strategic Infrastructure Battalions (SIBs) and the OPF. The electric infrastructure is protected by EPSS.

- The SIBs currently field more than 3,400 trained personnel to guard Iraq's critical oil infrastructure, particularly the vast network of pipelines.<sup>40</sup>
- The OPF, managed by the Ministry of Oil, is responsible for guarding all other Iraqi oil industry assets and facilities.<sup>41</sup>

In early 2005, the Iraqi Transitional Gov-

ernment formed the SIBs to improve infrastructure security. The SIBs are part of the Ministry of Defense, and four have completed basic training.<sup>42</sup> They are currently conducting security operations to protect oil pipelines and facilities that are critical to the domestic market and export industry.<sup>43</sup> MNSTC-I equipped the SIBs and helped the Ministry of Defense develop institutional expertise and tradecraft.<sup>44</sup> More than 3,400 soldiers have completed training in this area, and training for a second group has already begun.<sup>45</sup>

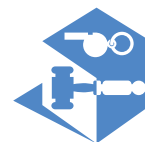
### OUTPUTS IN INFRASTRUCTURE SECURITY

On February 9, 2006, the IRMO Director detailed the goals of infrastructure security program:

- strengthen the capacity of Iraqi security forces to protect critical infrastructure
- improve ministry coordination
- implement rapid infrastructure repair-and-response programs

It is simply impossible to guard the entire 17,000 kilometers of linear infrastructure in the oil and gas and electricity sectors. Thus, the strategy focuses on protecting key nodes and bolstering Iraqi capabilities.<sup>46</sup>

SIGIR's Task Force Shield audit (SIGIR 06-009) indicated that the early programs to train and deploy an Iraqi oil and electricity security capacity did not meet their goals. The lack of a clear U.S. management structure for the program degraded the ability of Task Force Shield



to develop and meet critical capacity-building objectives. For a summary of this audit, see Section 3 of this Report.

### **OUTCOMES IN INFRASTRUCTURE SECURITY**

Attacks on Iraq's infrastructure account for only a small portion of total attacks. According to DoD, attacks on infrastructure during this quarter are down by 60%.<sup>47</sup> But, combined with other variables, attacks on critical infrastructure are still expected to have a significant impact on:

- oil and fuel production
- revenues derived from crude exports

Additionally, although the number of infrastructure attacks has recently decreased, the complexity of the attacks has increased: insurgents have become more proficient at targeting critical infrastructure nodes, as well as intimidating personnel who deliver essential services.<sup>48</sup> In early March 2006, DoS reported that Iraqi police had arrested several SIB guards on suspicion of aiding insurgents in targeting the oil pipeline system. This was the second recent incident in which SIB personnel were arrested in connection with insurgent plots against the oil pipeline infrastructure.<sup>49</sup>







## STATUS OF THE HEALTH CARE SECTOR

The SIGIR health care sector examines U.S. spending to support Iraq's medical system, training, and vaccinations. Iraq once had one of the best health care systems in the region, but it declined significantly during the Saddam Hussein regime.<sup>50</sup> In 2002, the Ministry of Health had a budget of \$16 million—a 90% reduction from ten years earlier.<sup>51</sup> After the 2003 war, a United Nations (UN) and World Bank estimate showed that the health care sector needed \$1.6 billion in near- and medium-term investment.<sup>52</sup>

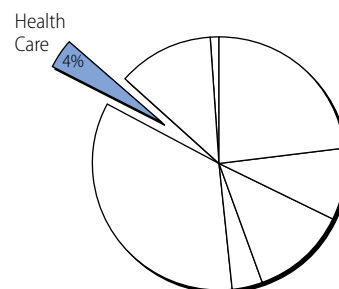
U.S. reconstruction has focused on rehabilitating and equipping local facilities, and providing more medical services like immunizations. Overall progress in this sector has been steady, but SIGIR auditors have identified several concerns this quarter regarding the

Primary Health Care Centers (PHC) Program.

These are the highlights of the health care sector report:

- The sector has IRRF 2 allocations of \$739 million (see Figure 2-7), and about 56% (\$417 million) had been expended by the end of this reporting period.
- More than 75% of projects have been completed in this sector, but progress has been significantly diminished by security and management problems.
- The notable shortfall in this sector involved the failure of the contractor to complete the PHC contract. The contract originally planned 150 clinics, but now it will complete only 20 facilities. The remaining 130 health care clinics were descope or cancelled. For a summary of SIGIR's audit of

Figure 2-7  
**HEALTH CARE SECTOR AS A  
 SHARE OF IRRF FUNDS**  
 % of \$18.439 Billion  
 Source: DoS *Iraq Weekly Status Report*, 03/29/06





- this contract, see Section 3 of this Report.
- U.S. projects to provide immunizations have been successful: almost all Iraqi children have been inoculated against measles, mumps, and rubella. Nearly 98% of children under five have been immunized against polio.

Figure 2-8 shows facilities construction projects in this sector by governorate.

## IRRF-funded Activities in the Health Care Sector

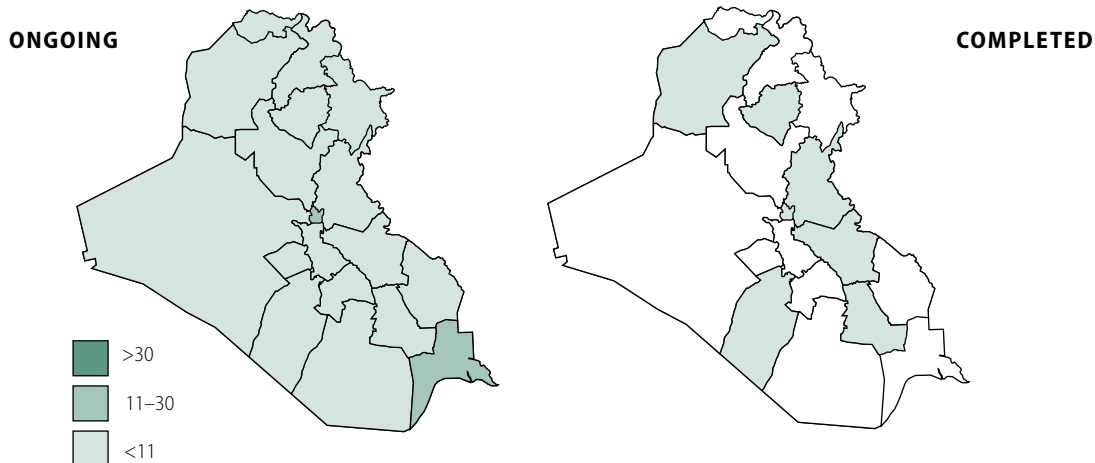
As of March 29, 2006, more than 90% of the sector's funding had been obligated, and 56% had been expended. The sector was originally

allocated \$793 million in IRRF 2 funding,<sup>53</sup> but as of March 2006, allocations had decreased by \$54 million (<7%). Figure 2-9 shows the status of funds in the health care sector.

Projects in this sector focus on constructing, rehabilitating, and equipping PHCs and hospitals. They also address training and vaccination programs. In this sector, 608 of 803 total projects have been completed (76%), mainly non-construction. There are no remaining projects to start.

Completion of health care projects has been hampered by security issues and management problems. Figure 2-10 shows the status of projects in the sector.

Figure 2-8  
**HEALTH CARE PROJECTS BY GOVERNORATE**  
Number of Projects  
Source: IRMS—IRMO Rollup File, 03/31/06





## Projects Completed and Underway in Health Care

In March 2004, the Project Management Office (PMO) awarded a design-build contract with a \$500 million ceiling to Parsons Global. The contract provided for the construction or refurbishment of ministerial buildings, hospitals, primary health care centers, and schools. Much of the work was tasked to local subcontractors or awarded through direct contracts to local firms and other contractual arrangements.<sup>54</sup>

Originally, Parsons was to construct 150 PHCs throughout Iraq, but because of cost increases, the design-build contract was initially descope to include only 141 centers.<sup>55</sup> But, as of March 2006, only six PHCs had been completed, all in Baghdad. These were handed

over to the Ministry of Health on March 15, 2006.<sup>56</sup> According to SIGIR's audit, only 14 more PHCs will be completed under the design-build contract (See Figure 2-11).<sup>57</sup>

GRD-PCO has reported to SIGIR that the remaining PHCs have since been descope from the design-build contract. They are expected to be completed through alternate funding means or by the Iraqis at a later date. For details of the SIGIR audit of this contract, see in Section 3 of this Report.

GRD-PCO is overseeing 22 hospital projects throughout Iraq. Six hospitals had been completed as of March 31, 2006, and 14 more are undergoing refurbishments.<sup>59</sup> Most will be completed by November 2006, but the Najaf Teaching Hospital is expected to be completed by March 2007.<sup>58</sup>

Figure 2-9  
**STATUS OF HEALTH CARE FUNDS**  
\$ Billions  
Source: DoS Iraq Weekly Status Report, 03/29/06

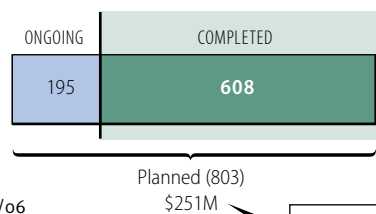
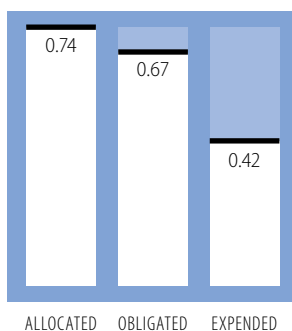
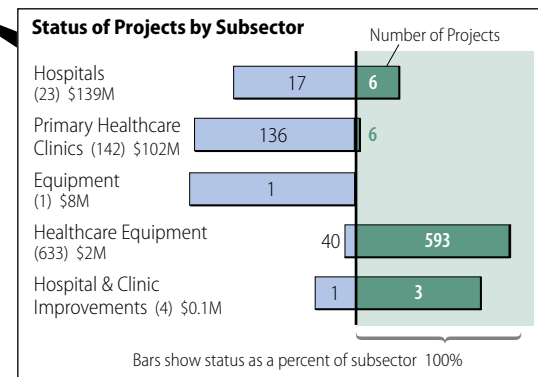


Figure 2-10  
**STATUS OF HEALTH CARE PROJECTS**  
Number of Projects  
Source: IRMS—IRMO Rollup File, 03/31/06





USAID is also in the process of completing one hospital project in the Basrah governorate, bringing to 21 the total number of hospitals in progress or completed with IRRF 2 funding. Completion rates have been slowed by poor security conditions, low contractor productivity, and quality-control issues.<sup>60</sup>

Although construction may be complete, these hospital facilities face other challenges. One of the contractors working on the Hilla Maternity and Children's Hospital is in the process of handing over the facility to the Iraqi Ministry of Health. However, much of the equipment is missing, and the contractor

is having difficulty locating the subcontractor. This missing equipment includes three chillers and a cooling tower, all scheduled to have been delivered by April 15, 2006.<sup>62</sup>

These are other ongoing hospital projects:

- Basrah Children's Hospital: a \$50 million design-build contract that is currently 30% complete.<sup>63</sup>
- Alwaiya Children's Hospital: a \$2.9 million project to modernize the facility that is approximately 72% complete.<sup>64</sup>

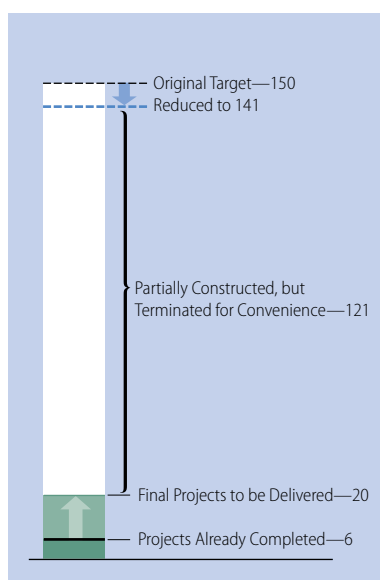
## Outputs of IRRF-funded Health Care Projects

Over the previous 20 years, a combination of under-investment and poor management have contributed to the overall deterioration of the physical infrastructure of Iraq's health care sector.

Before the war, Iraq had an estimated 250 hospitals and 1,200 PHCs, but they were poorly managed and maintained. Thus, many Iraqis in rural areas did not have access to health care facilities.<sup>69</sup>

Further, the capacity to deliver health care services was seriously compromised by the post-war looting that occurred in April 2003. A 2004 survey by the Ministry of Health found that looting or serious damage had affected one-third of primary care clinics and one-eighth of hospitals.<sup>70</sup> Erratic electricity supplies, unreliable water quality, and an unstable security situation also degrade the health care system's performance.

Figure 2-11  
**PHC PROJECTS BUILT UNDER THE DESIGN-BUILD CONTRACT**  
Source: IRMS—IRMO Rollup File, 03/31/06;  
IRMO Weekly Update Reports





HEALTH CARE

## HEALTH CARE FACILITIES

Coalition health advisors have worked, in conjunction with the Iraqi Ministry of Health, to move the health care system from the current hospital-based model to a system based on localized primary care clinics. The goal is to develop a more sustainable health care delivery system that improves services for all Iraqis, particularly vulnerable population groups in remote or underserved areas.<sup>72</sup> Execution of this strategy has been limited by the shortfall in PHC construction.

During this reporting period, SIGIR inspectors assessed five of the PHCs that were part of the Parsons contract. SIGIR found that these facilities were far from complete, and the completed portions were poorly constructed. There was inadequate quality control by the contractor and poor quality assurance plans. SIGIR inspectors also assessed two maternity and pediatric hospitals and four other clinics

but reported no significant deficiencies at any of the facilities. For details of these assessments, see Section 3 of this Report.

Of the six completed PHCs, three will reach initial operating capability by late April 2006 and will be used to train staff for the first group of 20 clinics.<sup>73</sup>

To date, the renovations of six hospitals have been completed, and another 14 are ongoing. See Table 2-2 for the status of facilities projects in this sector.

The hospitals and PHCs constructed under GRD-PCO supervision were funded with IRRF 2 dollars; the three sets of construction projects administered by USAID used mostly IRRF 1 funding. Of the USAID projects, the rehabilitated PHCs were meant to restore essential services to their service regions as rapidly as possible after the cessation of hostilities. The PHCs constructed and equipped by USAID focused on expanding the availability of basic health care in areas facing less risk of violence.<sup>75</sup>

### HEALTH CARE FACILITY CONSTRUCTION: CURRENT & PLANNED

HEALTH CARE FACILITIES	CURRENT STATE, AS OF 03/21/06	IRRF PLANNED END STATE
Hospitals Rehabilitated <sup>1</sup>	6	20
Hospitals Built <sup>2</sup>	In progress	1
Primary Health Care Centers Rehabilitated <sup>2</sup>	110	110
Primary Health Care Centers Equipped <sup>2</sup>	600	600
Small Primary Health Care Centers Built and Equipped <sup>2</sup>	6	6
Primary Health Care Centers Built and Equipped <sup>1</sup>	6	142

Source: NEA Data Call Response, March 24, 2006 (<sup>1</sup> represents work overseen by GRD-PCO; <sup>2</sup> represents work overseen by USAID)  
Table 2-2



## HEALTH CARE

## NON-CONSTRUCTION PROJECTS

The United States has procured and delivered approximately \$226 million in new medical equipment and supplies for Iraqi hospitals and PHCs.<sup>78</sup> Unfortunately, the PHCs that were to use this equipment are mostly incomplete. The United States has successfully trained thousands of health care professionals and funded two very effective vaccination campaigns for polio and measles, mumps and rubella (\$4.8 million).<sup>79</sup>

Table 2-3 presents the status of vaccination and training programs in Iraq.

### Outcomes of IRRF-funded Health Care Projects

The construction and delivery of only six PHCs—out of a planned total of 150—limits the progress of the reconstruction effort in this sector. IRMO estimates that approximately \$36

million is required to finish the 121 partially constructed PHCs that could not be finished under the contract.

Although the outcomes of U.S. projects will not be fully apparent for years, a few statistics show the immediate beneficial effects of U.S. interventions. Almost all Iraqi children have been inoculated against measles, mumps, and rubella. From 2004 to 2005, lab-confirmed cases of measles in Iraq dropped 90%. Also, nearly 98% of children under five have been immunized against polio, and there have been no recorded cases of polio since the war.<sup>80</sup> From 2002 to 2005, malaria cases dropped from 1,043 to 86.<sup>81</sup> Some data suggest that infant mortality rates have decreased from 10.7% in 2003<sup>82</sup> to an estimated 5.03% last year.<sup>83</sup>

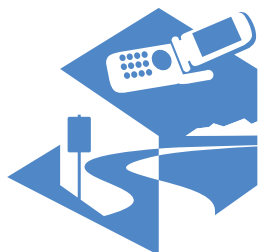
The effects of U.S. health care construction projects remain unclear.

## VACCINATION AND TRAINING PROGRAMS

OUTPUTS METRIC	CURRENT STATUS, AS OF 3/21/06
Vaccination programs	3.6 million children vaccinated against MMR (98% of target population) 4.6 million children vaccinated against polio (97% of target population)
Number of Ministry of Health Professionals Trained in Maternal and Child Health Service Delivery	3,400 3,200 from IRRF 1; 200 from IRRF 2
Community Leaders and Other Non-ministry Personnel Trained in Health Promotion	3,100 All IRRF 1 funding

Sources: DoS, SIGIR Data Request, received on March 31, 2006; USAID, SIGIR Data Request, April 7, 2006.

Table 2-3



## STATUS OF THE TRANSPORTATION AND COMMUNICATIONS SECTOR

This section examines the progress of reconstruction in the transportation and communications (T&C) sector. Projects in this sector improve transportation systems in Iraq, such as ports, railways, roads, bridges, and airports. This sector also includes U.S.-funded telecommunications projects.<sup>84</sup>

These are the highlights of SIGIR's progress report on transportation and communications:

- More than 80% of projects have been completed in this sector, with 53% of the \$799 million allocated to this sector expended. Figure 2-12 shows sector funding as a portion of total IRRF 2 allocations.
- A series of IRRF-funded projects has restored Iraq's only operational deepwater port at Umm Qasr.
- U.S. projects have nearly completed repairs at most of Iraq's 107 railway stations, but the effects of these projects are not yet apparent. Only 4% of trains run each day, primarily because of security concerns.
- After the 2003 conflict, Iraq did not have any functioning airports; now there are two international and three regional airports.
- Almost 5.2 million more Iraqis now have access to mobile phone service than before the 2003 conflict, financed by the private

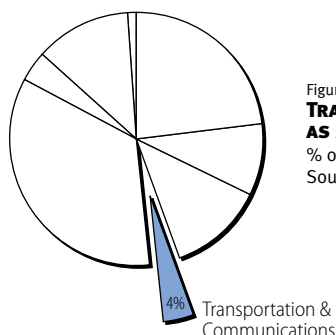


Figure 2-12  
**TRANSPORTATION AND COMMUNICATIONS  
 AS A SHARE OF IRRF FUNDS**  
 % of \$18.439 Billion  
 Source: DoS *Iraq Weekly Status* report, 03/29/06



## TRANSPORTATION AND COMMUNICATIONS

sector. The United States provided technical guidance to the Iraqi government in developing mobile licenses, and the CPA built a “first responder” network.

Figure 2-13 shows reconstruction activity in this sector by governorate.

### IRRF-funded Activities in the Transportation and Communications Sector

In this sector, 384 projects of 470 total projects have been completed. Projects in the T&C sector focus on five major areas:

- shipping
- railways
- air transportation
- roads and bridges
- telecommunications

Figure 2-14 shows the status of projects in the T&C sector.

Transportation infrastructure received heavy investment during the 1970s and 1980s, but much of it was destroyed during the first Gulf War, and years of neglect and sanctions slowed the rebuilding process.<sup>85</sup> In 2003, the UN and World Bank estimated that transportation and telecommunications in Iraq would require \$3.38 billion of investment in the immediate- and medium-term.<sup>86</sup> But CPA discovered later in 2003 that Iraq’s transportation and telecommunications infrastructure—would require significantly more investment.

The sector was originally allocated \$870

million in IRRF 2 funding<sup>87</sup> but currently has IRRF allocations of \$799 million. More than 90% of the sector’s funding has been obligated, and 53% has been expended. These are higher rates than all other U.S. reconstruction sectors except two: security and justice; and democracy, education, and private sector development. Figure 2-15 shows the status of funds in the T&C sector.

GRD-PCO estimates that construction will be completed in this sector by late 2008, when the last of the major highway projects executed through the Ministry of Construction and Housing are completed.<sup>88</sup>

PCO and USAID have executed most of the projects in the T&C sector. USAID infrastructure reconstruction contracts included the rehabilitation of airports and restoration of the deep water port at Umm Qasr.<sup>89</sup>

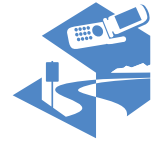
PCO projects in this sector were originally funded through an indefinite-delivery/indefinite-quantity (IDIQ) contract with a ceiling of \$325 million. This contract was terminated in October 2004, in part because of a shift from large design-build contracts to direct contracting with Iraqi firms.<sup>93</sup>

### SHIPPING

#### Key Shipping Projects Completed and Underway

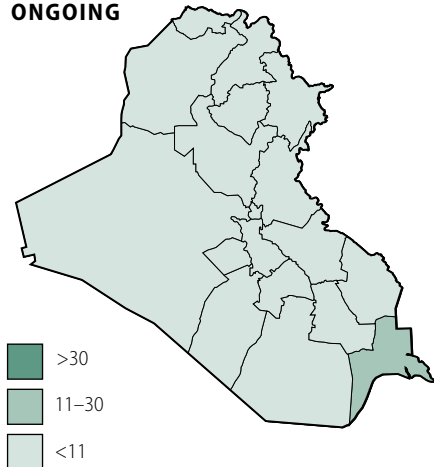
Although there are six cargo ports in Iraq, Umm Qasr, on the Iraq border with Kuwait, is the only deepwater port.<sup>94</sup> A 2003 UN-World Bank assessment recommended that port reconstruction efforts focus on Umm Qasr because of the critical role the port would play





TRANSPORTATION AND  
COMMUNICATIONS

## ONGOING



## COMPLETED

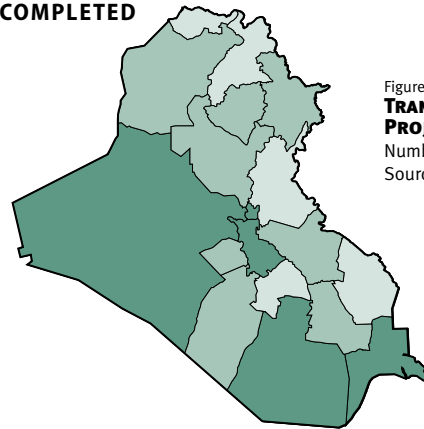


Figure 2-13  
**TRANSPORTATION AND COMMUNICATIONS  
PROJECTS BY GOVERNORATE**

Number of Projects

Source: IRMS—IRMO Rollup file, 03/31/06

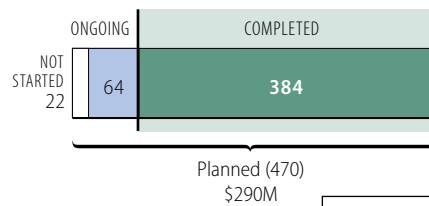
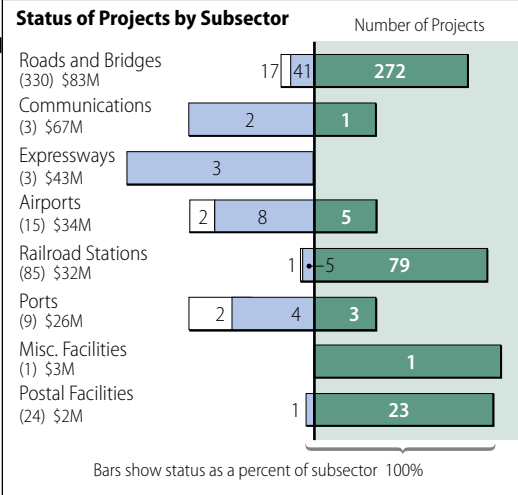
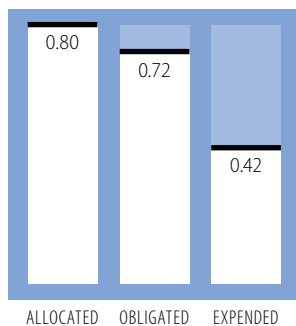


Figure 2-14  
**STATUS OF TRANSPORTATION AND  
COMMUNICATIONS PROJECTS**

Number of Projects

Source: IRMS—IRMO Rollup file, 03/31/06

Figure 2-15  
**STATUS OF TRANSPORTATION AND  
COMMUNICATIONS FUNDS**  
\$ Billions  
Source: DoS Iraq Weekly Status report, 03/29/06





## TRANSPORTATION AND COMMUNICATIONS



Port at Umm Qasr

in supplying the country.<sup>95</sup>

To ensure that the port could receive emergency supplies, the U.S. Army of Corps of Engineers (USACE) began work on it immediately following combat operations. By mid-June 2003, Umm Qasr was open for commercial shipping.<sup>97</sup> Since that time nearly \$42 million of IRRF 2 has been obligated for rehabilitation of the port, and much of the work is already completed.<sup>98</sup>

During this quarter, an operations building for the port was completed,<sup>99</sup> as well as \$4.8 million of security upgrades.<sup>100</sup> Also, a \$2.5 million project to buy various port vehicles—fire trucks, buses, and more—and fund operational training is nearly complete.<sup>101</sup> PCO has completed three of eight construction projects at the port and will finish the remainder by January 2007.<sup>102</sup>

### Outputs and Outcomes of IRRF-funded Shipping Projects

During the week ending March 25, 2006, 14 ships were berthed at Umm Qasr, and 18 ships continued to unload from the previous week. During the same week, 4,544 trucks were processed at the port.<sup>104</sup> U.S. projects have focused on repairs at Umm Qasr, and the increased activity at the port shows the value of these efforts. Figure 2-16 shows the number of new berths at Umm Qasr from December 21, 2005, to March 28, 2006.

## RAILWAYS

### Key Railway Projects Completed and Underway

Iraq has one of the most extensive railway networks in the region.<sup>105</sup> To support the repair of this network, projects in this subsector were originally budgeted at \$210 million, but \$21 million of that was reallocated. Current allocations total \$189 million.<sup>106</sup>

By the end of last year, GRD-PCO had rehabilitated 79 railway stations at a cost of \$1.5 million.<sup>106a</sup> During this reporting period, 89 stations were reported complete.<sup>107</sup> A SIGIR on-site inspection of station renovations in Basrah found poor quality work in several areas. For a summary of this inspection, see Section 3. During this reporting period, work was set to begin on a \$3.4 million renovation of the Baghdad Central Railway station and two equipment maintenance facilities, budgeted at \$10.4 million, were near completion at Baji and Samawa.<sup>108</sup>

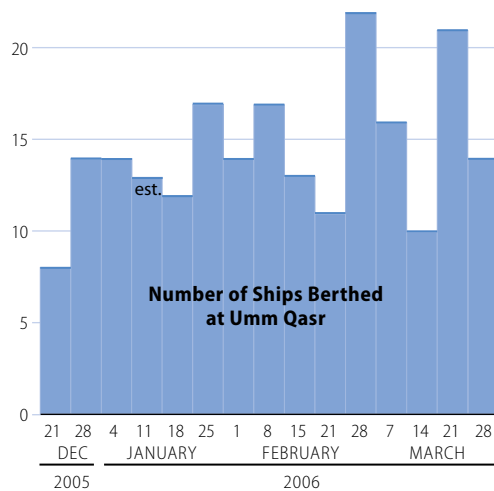


Figure 2-16

**NEW SHIP BERTHS AT UMM QASR**

Number of Berths

Source: IRMO *Weekly Status* reports, 12/28/05–3/28/06

GRD-PCO is spending \$125 million on non-construction railway projects. Much of this funding has been spent on track-maintenance machinery, spare parts, and tools and materials.<sup>109</sup> One of the largest projects, costing \$54 million, provides communications for a train-control system, which is essential to a viable, national railway system. The project is expected to be completed by early 2007,<sup>110</sup> but it faces a major challenge. Training on implementation and operation of the system is scheduled for July 2006 in the United States. However, obtaining travel permits from the Iraqi government for the trainees has been difficult. IRMO reported that this may cause this project to fail.<sup>111</sup>

**Outputs of IRRF-funded Railway Projects**

Iraq's 1,522 miles of rail lines and 107 rail stations were in poor condition at the end of the 2003 conflict.<sup>112</sup> IRRF 2 money has not been

used to repair track but instead has been used to purchase tools and machinery needed for Iraqi workers to accomplish the repairs.<sup>113</sup> U.S. projects have also helped bring the number of operational locomotives from 25 immediately after the war to 100 currently.<sup>114</sup> Although the majority of funding has been allocated to non-construction projects, GRD-PCO does plan to repair 106 out of 107 rail stations in Iraq.

**Outcomes of IRRF-funded Railway Projects**

Although there has been progress in refurbishing railway stations and locomotives, the security situation in Iraq has contributed to a gap between planned and actual train movements. Train activity has declined substantially from post-war levels because of attacks concentrated in a six-mile section in Latafiya, south of Baghdad. No trains have operated along the Baghdad-Basrah-Umm Qasr route since February 2006, and PCO trains have not operated since



## TRANSPORTATION AND COMMUNICATIONS

January 2006. Figure 2-17 shows weekly train traffic for 2006.

While the effects of U.S. projects have not been felt by many Iraqis, improvements in security have enabled the Iraqi Republic Railway (IRR) to operate two large trains daily along the Mosul-Rabiya line, importing food, consumer goods, and fuel from Syria and Turkey.<sup>115</sup>

### AIR TRANSPORTATION

#### Key Air Transportation Projects Completed and Underway

Iraq last conducted normal air transportation operations in 1989 when airlines carried about 1.2 million passengers to 42 destinations within Iraq and abroad. UN sanctions from 1990 to 2003 grounded most civil international air traffic, although there were still sporadic flights into Baghdad.<sup>116</sup> Airports in Iraq were not maintained during the sanction years and

suffered further damage during the 2003 conflict. A 2003 UN/World Bank study noted that the two international and three major domestic airports in Iraq were incapable of supporting commercial operations and that most of the electromechanical systems were useless.<sup>117</sup>

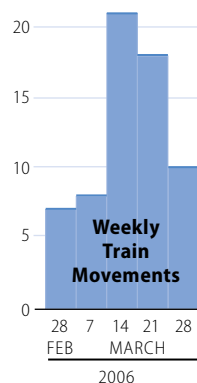
In May 2003, USAID began emergency work at Bagdad International Airport (BIAP) and Basrah International (BIA). U.S. projects have since restored commercial operations at two international airports—BIAP and BIA—and regional operations at Mosul, Kirkuk, and Irbil.<sup>119</sup> The program goal is to bring all of these airports up to the standards of the International Civil Aviation Organization. Work in Basrah will be complete in May 2006, and work in Baghdad and Mosul is estimated to be complete by August 2006.<sup>120</sup>

During the last reporting period, IRRF 2 allocations for civil aviation decreased by \$38 million, to \$76 million.<sup>121</sup> U.S. projects alone will not bring Iraqi airports to international standards; Iraqi efforts and funding will also be required.<sup>122</sup>

#### Outputs of IRRF-funded Air Transportation Projects

After the 2003 war, Coalition forces provided air traffic approach and control services.<sup>123</sup> BIAP was returned to Iraqi control in August 2004.<sup>124</sup> Since September 2004, Iraqi Airways has operated a single Boeing 737 airplane, recently adding a Boeing 767 and other aircraft via leases.<sup>125</sup> A recent SIGIR project assessment at the Mosul Airport found that U.S.

Figure 2-17  
**VOLUME OF RAIL TRAFFIC**  
Number of Train Trips  
Sources: IRMO *Weekly Status*  
Reports, 2/28/06–3/28/06





TRANSPORTATION AND  
COMMUNICATIONS

projects there were of high quality and that sustainability has been adequately addressed. For a summary of this assessment, see Section 3 of this Report.

## Outcomes of IRRF-funded Air

### Transportation Projects

During the week of March 20-26, 2006, there were 291 civil aviation operations at BIAP.<sup>127</sup> Figure 2-18 shows the number of daily commercial flights at BIAP from this past quarter.

## ROADS AND BRIDGES

This section outlines the key U.S. projects to improve roads and bridges in Iraq. SIGIR does not report outcomes in the roads and bridges subsector.

## Key Road and Bridge Projects

### Completed and Underway

In 2003, Iraq was estimated to have 25,230 miles of roads, and 85% of the roads were paved.<sup>128</sup> Although roads were not seriously damaged during the 2003 conflict,<sup>129</sup> only 50% of the expressways were then estimated in “good” condition, and only 20-30% of secondary and village roads were in “good” condition.<sup>130</sup> Insurgent attacks after the war further damaged the road infrastructure, especially to the main highway connecting Baghdad and Amman.<sup>131</sup>

PCO reports that five bridges will be rebuilt by January 2008, at a cost of \$21.2 million. Two major roadway projects are also in their initial stages. The 54-mile highway between Baghdad

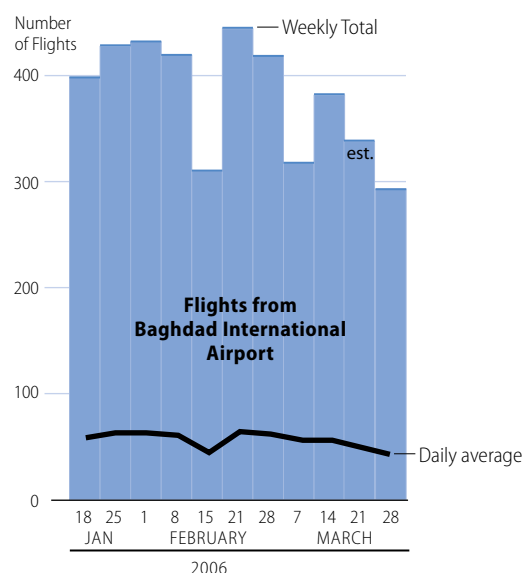


Figure 2-18  
**VOLUME OF FLIGHTS AT BAGHDAD INTERNATIONAL AIRPORT**  
Number of Flights  
Sources: IRMO Weekly Status reports, 1/18/05–3/28/06

and Kirkuk will be upgraded to four lanes by December 2008, at a cost of \$27.9 million. The 43.4-mile highway between Diwaniyah and Semawa is also being upgraded to four lanes. It will be completed in January 2008, at a cost of \$15.5 million.<sup>134</sup>

Major U.S. programs are also underway to repair small roads. The Village Roads Program, a \$38 million effort overseen by GRD-PCO, will provide 263 miles of improved roads, of which more than 50% has been completed to date.<sup>135</sup>

A SIGIR assessment team reviewed a small section of village roads outside of Mosul and found that the project is on target. The team



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found problems with the design drawings of the project; but all other work was consistent with the contract. SIGIR also conducted two limited on-site inspections of road projects in Basrah and Thi-Qar. Summaries of these limited on-site inspections and the Mosul assessment—including aerial imagery of a road project in An Najaf—are in Section 3 of this Report.

Small roads are also receiving up to \$52 million through the Provincial Reconstruction Development Committees (PRDCs), which will allow provincial councils to prioritize the road projects in their respective provinces.<sup>136</sup> At the end of this reporting period, 59 projects, valued at \$49.5 million, had been approved. The projects are intended to meet key needs for Iraq's national highways, with scheduled completion in April 2007.<sup>137</sup>

### Outputs of IRRF-funded Road and Bridge Projects

U.S.-funded projects have focused on only a small percentage of roads and bridges in Iraq. Table 2-4 compares the cumulative total of miles of road repaired and built, as well as the number of bridges repaired and built, against pre-war levels.

## TELECOMMUNICATIONS

### Key Telecommunications Projects

#### Completed and Underway

Nearly \$20 million in IRRF was allocated to modernize the Iraqi Telephone and Post Company (ITPC). During this reporting period, 9 postal trucks and 26 vans were purchased and delivered for \$1.3 million.<sup>138</sup> PCO also plans

to construct or renovate 36 Iraqi post offices for \$2.83 million. To date, the projects are 41% complete; when finished, they will provide mail service for one million Iraqis.<sup>139</sup> The Iraqi telecommunications system was originally allocated \$90 million, but now has only \$48 million to initiate long-term upgrades and increase capacity and sustainment.<sup>140</sup>

An allocation of \$20 million was also made available to rebuild the Al Mainoun Telecommunications Center. This technology center will house major switching elements of the Iraqi Telephone Network, the national operations center, and international gateway equipment.<sup>141</sup>

The \$70 million Consolidated Fiber Network (CFN) is intended to rehabilitate and extend the existing ITPC fiber network. When complete, the CFN will allow the Ministry of Electricity to control the electrical system and communicate via the network. By the end of this reporting period, 82% of the cable was installed, and the project is scheduled to be completed in summer 2006.<sup>142</sup>

The National Communications and Media Commission (NCCMC) was originally allocated \$25 million, but now has only \$20 million. To date, the headquarters for NCCMC has been finished and equipped, and a training strategy plan is in progress.<sup>143</sup>

### Outputs of IRRF-funded

#### Telecommunications Projects

The first Gulf War and the air strikes of 1998 severely damaged the telecommunications infrastructure. During the war, Coalition forces



## ROADS AND BRIDGES REPAIRED AND GOAL

OUTPUTS METRIC	PRE-WAR LEVEL (2003)	PLANNED REPAIRS/PAVING – GRD/PCO ONLY, AS OF MARCH 29, 2006
Miles of Road	25,230 21,450 paved  *Only 50% of expressways and 20-30% of secondary roads in "good condition"	Village roads: 263* City carriageways: 125 Major roads: 17 Total: 405 *Village Roads program originally planned for 445 miles
Number of Bridges	1,156 *In poor condition or completely destroyed	10 *5 funded by IRRF, 5 funded by DFI

Sources:  
Pre-war Level: Note, these figures are rough estimates. United Nations/World Bank, "Joint Iraq Needs Assessment," October 2003, p. 23.  
Miles of road repaired: GRD-PCO, "Response to SIGIR request dated February 25, 2006," March 29, 2006, p. 8.  
Number of bridges repaired: DoS Email to SIGIR, March 31, 2006.

Table 2-4

bombed many Iraqi telephone exchanges to disrupt communications within the country.<sup>144</sup> After combat operations in 2003, 12 of Baghdad's 38 switching stations were out of service, which made nearly 45% of all landlines inoperable. USAID repaired all 12 of these stations using IRRF 1 funds.<sup>145</sup> To date 35 of 42 ITPC sites have fiber connectivity through the CFN project,<sup>146</sup> with approximately 106 miles of fiber lines operational.<sup>147</sup>

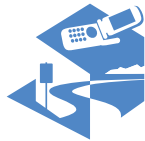
### Outcomes of IRRF-funded

#### Telecommunications Projects

Before the war, only the Kurdish governorates had a civilian mobile phone network, but now wireless technology is the most popular com-

munication method in Iraq. In late 2003, the Iraq Ministry of Telecommunications granted three, two-year licenses for Global System for Mobile Communications (GSM).<sup>148</sup> Although the U.S. Embassy provided technical guidance to the NCMC in awarding these licenses<sup>149</sup> and the CPA designed and built a "first responder" network for security forces,<sup>150</sup> most development in wireless communications has come through private investment. Table 2-5 compares the current number of telephone subscribers with the pre-war numbers.

Before the war, Internet access was expensive and carefully controlled, and only a few thousand users subscribed. After the war, the state-owned Internet service provider—State



## TRANSPORTATION AND COMMUNICATIONS

Company for Internet Services (SCIS)—began addressing the challenges of Iraq’s limited regulation, policy, and legal framework.<sup>151</sup>

Currently, there are about 213,000 SCIS Internet subscribers in Iraq; most Iraqis continue to gain access through cafes and hotels.<sup>152</sup> DoS estimates that there are 2,000 Internet cafes and Internet access points in Iraq.<sup>153</sup>

### CURRENT TELEPHONE SUBSCRIBERS VS. PRE-WAR LEVELS

OUTPUTS METRIC	PRE-WAR LEVEL (2003)	CURRENT STATUS AS OF 3/28/06
Landline subscribers	833,000	1,036,854
Mobile Phone subscribers	80,000	5,261,789

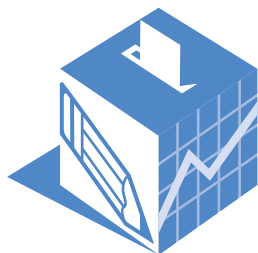
#### Sources:

Pre-war Levels: Economist Intelligence Unit, Country Profile 2005-Iraq, 2005, p. 34; International Telecommunication Union, World Telecommunication/ICT Indicators, No Date, p. A-30. Available online at [http://www.itu.int/ITU-D/ict/statistics/at\\_glance/cellular03.pdf](http://www.itu.int/ITU-D/ict/statistics/at_glance/cellular03.pdf).

Current Status: IRMO, Weekly Status report, March 28, 2006, p. 19.

Table 2-5





## STATUS OF DEMOCRACY, EDUCATION, AND PRIVATE SECTOR DEVELOPMENT

This SIGIR review examines U.S. spending on democracy programs, education, and private sector development. Projects reviewed in this sector include construction or rehabilitation of education facilities and training programs in education, democracy, and private sector development. Many of the private sector development projects have focused on providing the Iraqi government with technical advice on institutional and market reforms.<sup>154</sup>

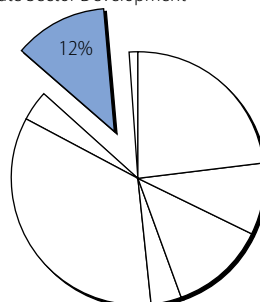
After initially focusing IRRF 2 funding almost exclusively on large infrastructure projects in 2004, U.S. spending in this sector was reoriented through a series of reallocations specifically designed to support elections in 2005.

These are the highlights of the report on democracy, education, and private sector development:

- These sectors have IRRF 2 allocations of \$2.249 billion. (See figure 2-19.) Other donors, including the World Bank, have seen education as a priority and have funded projects in this sector. In their 2003 needs assessment, the UN and World Bank estimated that the human resource development sectors needed \$6.7 billion in the near- and medium-term.<sup>155</sup>
- More than 90% of projects (8,613) have been completed in this sector, and 872 are ongoing.
- A total of 5,108 schools have been repaired and rehabilitated, and more than 47,000 teachers have been trained. It has been difficult to derive the precise number of schools refurbished and constructed because these projects had multiple funding sources and implementing agencies.

Figure 2-19  
**DEMOCRACY, EDUCATION, AND  
PRIVATE SECTOR DEVELOPMENT SECTOR  
AS A SHARE OF IRRF FUNDS**  
% of \$18.439 Billion  
Source: DoS Iraq Weekly Status Report, 03/29/06

Democracy, Education, and  
Private Sector Development





## DEMOCRACY, EDUCATION, AND PRIVATE SECTOR DEVELOPMENT

- Private sector development projects have focused on training programs and technical advice to the Iraqi government on institutional and market reforms. These programs have helped to set the stage for economic growth based on private sector initiatives. The Iraqi economy grew by an estimated 75% between 2002 and 2005, and some of this growth is directly linked to U.S. programs.

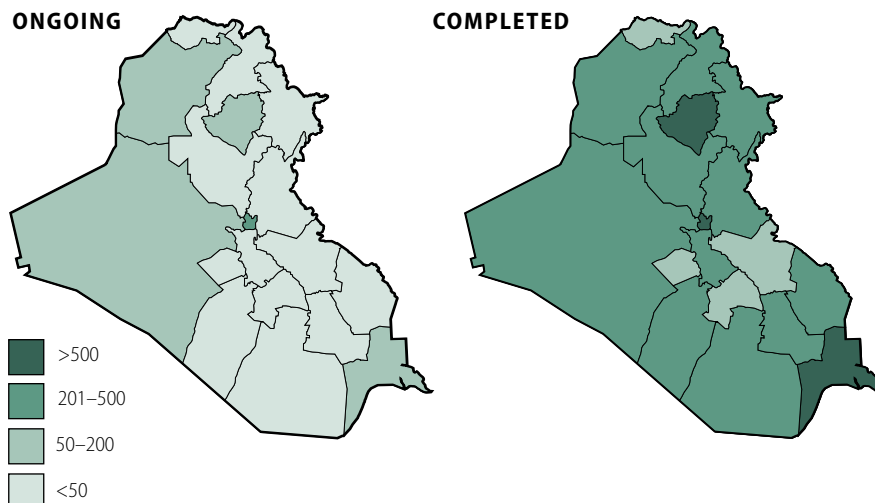
Figure 2-20 shows reconstruction activity in this sector by governorate.

## IRRF-funded Activities in Democracy, Education, and Private Sector Development

By the end of this quarter, more than 93% of the sector's funding had been obligated, and 67% had been expended. Democracy, education, and private sector development were originally allocated \$533 million in November 2003,<sup>156</sup> but allocations have been increased to more than \$2.2 billion, for an increase of 322%, which is shown in Table 2-6. Figure 2-21 shows the status of funds in the democracy, education, and private sector development sector.

Three wars, sanctions, and massive corruption under the Saddam regime degraded Iraq's economy in every area. After the first Gulf War, there was little national investment in the services sector. The education system of Iraq was

Figure 2-20  
**DEMOCRACY, EDUCATION, AND PRIVATE SECTOR  
DEVELOPMENT PROJECTS BY GOVERNORATE**  
Number of Projects  
Source: IRMS-IRMO Rollup file, 03/31/06





## DEMOCRACY, EDUCATION, AND PRIVATE SECTOR DEVELOPMENT

Figure 2-22  
**STATUS OF DEMOCRACY, EDUCATION, AND  
PRIVATE SECTOR DEVELOPMENT PROJECTS**  
Number of Projects  
Source: IRMS--IRMO Rollup File, 03/31/06

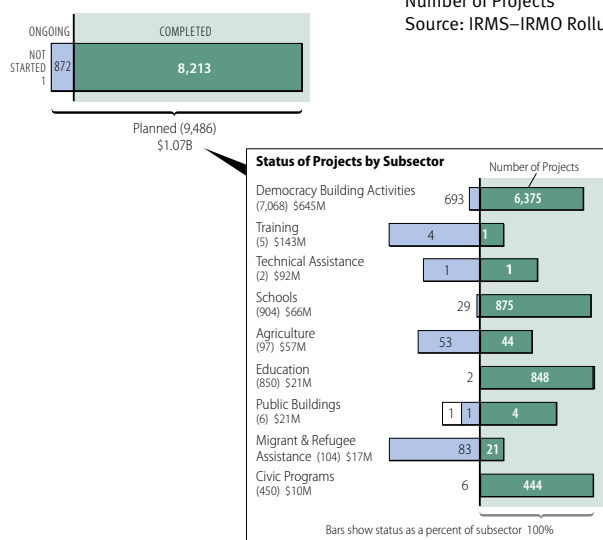
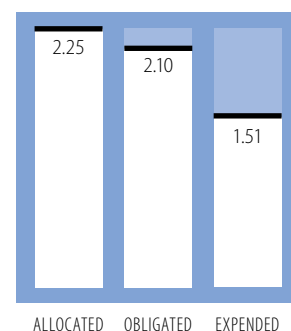


Figure 2-21  
**STATUS OF DEMOCRACY, EDUCATION, AND  
PRIVATE SECTOR DEVELOPMENT FUNDS**  
\$ Billions  
Source: DoS Iraq Weekly Status Report, 03/31/06



## IRRF 2 ALLOCATION CHANGES FOR DEMOCRACY, EDUCATION, AND PRIVATE SECTOR DEVELOPMENT (DOLLARS IN MILLIONS)

2207 SECTOR	CONGRESSIONAL ALLOCATION, NOV. 2003	CURRENT ALLOCATION, MARCH 2006	CHANGE IN DOLLARS	PERCENTAGE CHANGE
Private Sector Development <sup>1</sup>	\$153	\$805	\$652	426%
Education, Refugees, and Human Rights	\$280	\$410	\$130	46%
Democracy <sup>2</sup>	\$100	\$1,033	\$933	933%
<b>Total for Democracy, Education, and Private Sector Development</b>	<b>\$533</b>	<b>\$2,248</b>	<b>\$1,715</b>	<b>322%</b>

<sup>1</sup> \$360 million of private sector development is allocated to Iraqi debt forgiveness as required by Congress to enable implementation of the U.S.-Iraq bilateral debt agreement signed pursuant to the Paris Club debt forgiveness arrangement.

<sup>2</sup> \$100 million was made available for democracy-building activities from the justice, public safety infrastructure, and civil society sector.

Sources: U.S. Congress, Public Law 108-106, 117 Stat. 1225; DoS Iraq Weekly Status report, March 29, 2006.

Table 2-6



## DEMOCRACY, EDUCATION, AND PRIVATE SECTOR DEVELOPMENT

once among the best in the region, but schools and universities seriously declined during the past two decades.

Although 8,613 projects have been completed (91%) in this sector, the project completion rate is not evenly distributed among subsectors: private sector development programs lag, as do projects focused on refugee assistance. Figure 2-22 shows the status of projects in the sector.

### DEMOCRACY

Since the last quarter, democracy-building initiatives have received approximately \$38.5 million in additional funding,<sup>157</sup> reflecting the premium that the U.S. government places on consolidating the success of the nationwide elections in December 2005. The development of a broadly representative national unity government in Iraq is a key to stabilizing the country.<sup>158</sup>

#### Democracy Projects Completed and Underway

During the quarter, the United States continued to promote IRRF-funded local democracy-building initiatives, working through the Coalition Provincial Reconstruction Teams (PRTs) and the newly created Provincial Reconstruction Development Councils (PRDCs). The PRDCs comprise local officials and community leaders in each of the 18

governorates who are empowered to make decisions about local reconstruction priorities. Staffed by both civilian and military personnel skilled in various development specialties, the PRTs will help monitor reconstruction programs and various outreach efforts in the governorates. PRT staff help the leaders of their respective governorates prioritize initiatives to address the needs of the local people. As funds become available, the PRTs use those funds to help execute contracts that address the concerns of the local people and generate short-term employment opportunities and civic education initiatives.<sup>161</sup>

Cumulatively, \$126 million in IRRF funding was obligated to oversee and support the election and political process.<sup>163</sup> Support has also been given to media training and coalition-building initiatives, including workshops and educational training, to encourage political parties not represented in parliament to remain engaged in the constitutional process.<sup>164</sup>

USAID also manages a number of democratic development initiatives, including:

- Community Action Program (CAP)
- Iraqi Civil Society and Independent Media Program
- Local Governance Program II

Because of funding shortfalls, current plans are to fund only the Local Governance Pro-



DEMOCRACY, EDUCATION,  
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DEVELOPMENT

gram II in the future. This program promotes diverse and representative participation in local government in all 18 governorates. The program also offers training in government management and works with civil society organizations to help them become more involved in the public sector.

#### **Outputs of IRRF-funded Democracy Projects**

To date, only 4 of the 18 PRTs have been fielded, and a fifth is pending deployment. An agreement was reportedly reached in early-April 2006 between DoS and DoD, with DoD agreeing to provide security for the PRT teams already in the field.<sup>167</sup>

According to USAID, 750,000 Iraqis have participated in 22,000 democracy dialogues initiated under the Local Governance Program II.<sup>168</sup> This program was also used to establish or rebuild 16 governorate councils, 90 district councils, 194 city or sub-district councils, and 437 neighborhood councils. The Local Governance Program II has also provided training to 88% of newly elected Iraqi political leaders, supported efforts to increase the participation and role of women in the new Iraqi democracy, and assessed PRDCs to help identify and prioritize local governance efforts.<sup>169</sup>

The USAID CAP operates throughout Iraq to promote democracy and help mitigate conflict at the local level. This program has thus far established more than 1,400 community associations throughout the country and has created more than 2 million short-term jobs.<sup>170</sup>

USAID also reports that the Civil Society

Program has issued 400 small grants, totaling \$3.5 million.

#### **Outcomes of IRRF-funded Democracy Projects**

The transition to democracy and representative government is a significant development for Iraq given its history. Representative structures are being built at the local and national levels. A persistent insurgency, ethno-sectarian violence, and human rights violations, however, all continue to threaten the development and consolidation of democratic governance.

Approximately 14,000 Iraqi citizens have received training on the role of elected members of parliament and how to advocate for citizens' rights,<sup>172</sup> and more than 1,000 media managers have received training under CAP; smaller media outlets, in particular have demonstrated improved skills in reporting on complex social topics.<sup>173</sup> Finally, USAID activities helped provide electoral support to organize and manage the three milestone democratic events that occurred in January, October, and December 2005. Specifically, USAID-led initiatives helped build the capacity of Iraqi political parties, supported the transitional and constitutional processes, and promoted voter awareness.<sup>174</sup> For an overview of progress toward democracy in Iraq, see Figure 2-23.

#### **EDUCATION**

This section presents the key projects and outputs in the DoS *Section 2207 Report* sectors: Education, Refugees, Human Rights, and Gov-



DEMOCRACY, EDUCATION,  
AND PRIVATE SECTOR  
DEVELOPMENT

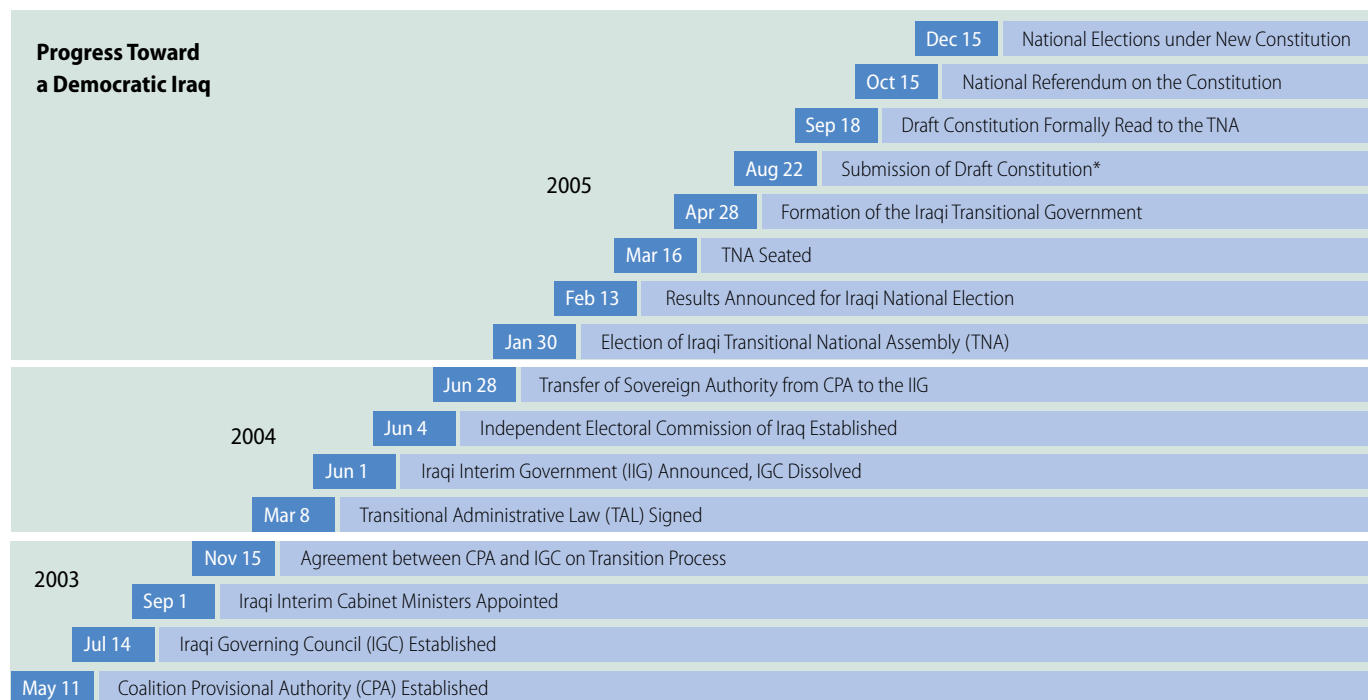


Figure 2-23

## MILESTONES OF PROGRESS TOWARD A DEMOCRATIC IRAQ

Source: DoD 9010 Report, February 2006

\*Pursuant to the TAL, the TNA extended the deadline from August 15 until August 22

ernance; and education construction projects in the Roads, Bridges, and Construction sector. The outcomes of education projects will not be realized for some years; therefore, SIGIR does not report on them in this subsection.

### Education Projects Completed and Underway

Renovations on the Malk Al Ashtar School project in Diwaniyah were completed during this reporting period. This project will ben-

efit approximately 2,000 Iraqi students who are currently attending classes in two inferior facilities. Refurbishment of the Imam Ali School in Karbala was also completed, serving approximately 960 students.<sup>175</sup>

In addition, the Al Watan School in Beni-Zaid has refurbished classrooms, offices, and storage rooms, as well as a new schoolyard for the secondary school. This work will benefit more than 300 local students. The Al Ara-



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biyah School in Istiglal also received repairs and upgrades of its structural, mechanical, plumbing, and electrical building systems, all to the benefit of approximately 250 students.<sup>176</sup> Construction on a \$100,000 USACE school renovation project in Adhamiyah was also recently completed; it is expected to benefit approximately 250 students in grades K-6.<sup>177</sup>

In Section 3 of this Report, SIGIR reports its findings on inspections of various school construction projects. The inspections reveal that, although the quality of workmanship at a primary school in Dahuk was good, the quality of workmanship at three other school projects assessed in the governorate of Thi-Qar appears to be low.

Several non-construction projects have also been completed in this subsector. The Revitalization of Iraq Schools and Stabilization of Education (RISE) is funded through an IRRF 1 contract valued at \$62.6 million and an IRRF 2 contract valued at \$56.5 million (a total of \$119.1 million).

USAID has also partnered with the United Nations Children's Fund and the United Nations Educational, Scientific, and Cultural Organization to provide educational sector assessments, teacher training, health education, and an accelerated learning program for out-of-school youth. The programs have received grants of \$29.6 million.

More than \$20 million has gone to the Higher Education and Development Program, which partners higher education in Iraq with U.S.-led university consortiums.<sup>180</sup> More than

1,500 Iraqi faculty and students have benefited from this program.<sup>181</sup>

### Outputs of IRRF-funded Education Projects

Until the 1980s, the education system in Iraq was considered to be a model for the region. However, the system has steadily deteriorated because of Saddam Hussein's neglect, a lack of resources during multiple wars, and the politicization of the system.<sup>182</sup> In 2003, the UN/World Bank needs assessment reported that rehabilitating the Iraqi education system to its 1980s level must be at the heart of the reconstruction effort, and that it could take \$4.8 billion.

The major cause for the deterioration of the education sector's infrastructure was Saddam Hussein's decision to terminate almost all maintenance and new construction of school facilities after the 1991 Gulf War when international sanctions came into force. Education expenditures fell from \$620 per student in 1989 to \$47 in 2002. During the 2003 conflict, many school buildings were damaged further by bombing and looting.<sup>183</sup>

Just before the 2003 war, there were more than 14,000 schools in Iraq; an estimated 11,000 of those needed repairs or refurbishments. The specific purpose of the GRD-PCO school program was to refurbish existing facilities to restore them to an acceptable level to promote a healthy learning environment.<sup>184</sup> In February 2003, USAID reported that the coalition goal for physical reconstruction of school facilities would be to repair or rehabili-



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tate 6,000 schools within 18 months after the end of conflict.<sup>185</sup>

As of March 31, 2006, GRD-PCO reported that it has successfully constructed or refurbished 800 schools using IRRF 2 funds,<sup>186</sup> and USAID had reported the construction or refurbishment of 2,943 with funding from both IRRF 1 and IRRF 2.<sup>187</sup> In addition to the schools completed by PCO and USAID, 1,365 schools have been refurbished by MNF-I, which also includes funding through the Commander's Emergency Response Fund (CERP).<sup>188</sup>

For a breakdown of total schools in Iraq versus IRRF funded activities, see Table 2-7.

Non-construction education projects have successfully trained thousands of teachers. USAID has also provided Iraqi schools with hundreds of thousands of desks, chairs, and

chalkboards, and more than three million school kits.<sup>189</sup> Table 2-8 shows the cumulative total of teachers trained with IRRF 2 funding.

## REFUGEES, HUMAN RIGHTS, AND GOVERNANCE

This section presents projects covered in the DoS *Section 2207 Report* sector for Education, Refugees, Human Rights, and Governance. Results and effects are difficult to measure in the short term for refugees, human rights, and governance components of the subsector and so are not presented in this section.

### Projects Completed and Underway

Migration and Refugee Assistance received an increase of \$27 million in IRRF 2 funding

TOTAL SCHOOLS IN IRAQ VERSUS IRRF FUNDED ACTIVITIES

TOTAL SCHOOLS (2003)	SCHOOLS NEEDING REPAIR (2003)	SCHOOLS COMPLETED	SCHOOLS IN PROGRESS	SCHOOLS NOT YET STARTED
14,121	11,000	2,358 – USAID IRRF 1 585 – USAID IRRF 2 800 – PCO IRRF 2 1,365 – MNF-I	N/A – USAID IRRF 1 221 – USAID IRRF 2 3 – (PCO) N/A – MNF-I	N/A – USAID IRRF 1 N/A – USAID IRRF 2 1 – PCO IRRF 2 N/A – MNF-I

Sources: DoS *Section 2207 Report* Executive Summary, April 2006, p. 18; USAID and PCO responses to SIGIR data calls on April 19, 2006.

TABLE 2-7





DEMOCRACY, EDUCATION,  
AND PRIVATE SECTOR  
DEVELOPMENT

CUMULATIVE TOTAL OF TEACHERS TRAINED WITH IRRF 2 FUNDING

OUTPUT METRIC	FUNDING	CURRENT STATUS AS OF 3/31/06	GOAL BY END-STATE
Teachers Trained	\$5.6 million	47,695	60,000

Sources: USAID, SIGIR Data Request submitted by DoS, March 24, 2006; USAID, Email to SIGIR, April 7, 2006; USAID, Email to SIGIR, April 19, 2006.

TABLE 2-8

last quarter, reaching \$186 million in total allocations. This includes cash grants for displaced persons, a capacity-building program, and work and relocation programs.<sup>190</sup>

The DoS Bureau of Democracy, Human Rights, and Labor (DRL) and USAID have been allocated \$15 million to promote human rights in Iraq.<sup>192</sup>

USAID is working on governance issues with the Ministry of Finance. Two contracts have been awarded to reform the tax, legal, fiscal, institutional, and regulatory frameworks in Iraq. The first, funded at \$79.6 million from IRRF 1, was completed in September 2004. The second, funded by \$184.6 million from IRRF 2, was awarded during the same month.<sup>193</sup> The U.S. Department of Treasury is working to establish modern central bank functions, with \$35.1 million from IRRF 1 and IRRF 2.<sup>194</sup> During the last quarter, bank restructuring recommendations were presented to the Ministry of Finance for consideration.<sup>195</sup>

## PRIVATE SECTOR DEVELOPMENT

This section presents the key projects in private sector development. SIGIR has not been able to verify the total number of Iraqis trained as a result of U.S. projects. It is difficult to measure the results of U.S. projects promoting institutional and market-based reforms in Iraq. As a result, outputs and outcomes are not presented for this subsector.

### Projects Completed and Underway

USAID awarded two contracts in October 2004 for private sector development. The first—a \$154 million contract—was intended to provide assistance in privatizing state-owned enterprises, developing capital markets and trade policy, and training Iraqis in business management. The second—a \$12 million contract—was to build and maintain business centers that provide training and technical assistance to businesses.<sup>196</sup>

At the program level, \$53 million has been made available for microfinance loans,<sup>197</sup> and \$184 million for institutional and market-



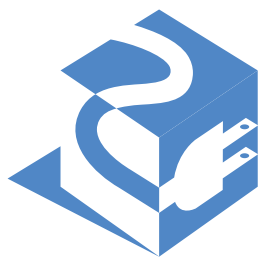
### DEMOCRACY, EDUCATION, AND PRIVATE SECTOR DEVELOPMENT

based reforms. These reforms focus on helping develop the Iraq Stock Exchange, Iraq Securities Commission, and Iraq Association of Securities Dealers.<sup>198</sup> Work is also progressing on measures to support Iraq's membership in the World Trade Organization.

During last quarter, the \$75 million Vocational Training program was terminated because Iraq's government has changed priorities.<sup>200</sup> A business skills training program, allocated \$40 million, was also closed out this

quarter by USAID. The program provided for \$3 million in grants for small and medium business startups, and training for 2,436 Iraqi entrepreneurs.<sup>202</sup>

The agriculture sector employs more Iraqis than any other sector; about a quarter of the Iraqi workforce is in the agriculture sector.<sup>203</sup> Agriculture programs have been allocated \$105 million. These programs mainly focus on tractor repairs, training, and irrigation systems.<sup>204</sup>



## STATUS OF THE ELECTRICITY SECTOR

This review updates the status of U.S. reconstruction projects to rebuild Iraq's infrastructure for generating, transmitting, and distributing electricity. SIGIR makes the following observations about progress over the last quarter in the electricity sector:

- By the end of the quarter, 44% of planned projects in this sector were complete,<sup>205</sup> and 48% of the allocated dollars had been expended. More than \$700 million of the \$4.22 billion are still left to be obligated (See Figure 2-26). In addition, 1 nationwide project has been completed, and 33 nationwide projects are currently ongoing in the electricity sector.
- The current predicted completion date for all GRD-PCO projects in this sector is January 2008. However, at current rate of expenditures, actual completion by this date will not be met.
- IRRF-funded U.S. electricity projects have contributed 2,710 megawatts (MW) to Iraq's generation capacity. Overall genera-

tion capacity available to the grid, however, is currently below the estimated pre-war level—4,004 MW currently, compared to 4,500 MW before the war.

- For the week ending March 28, 2006, the average load served was 91,092 megawatt hours (MWH). Last year, during this same time period, the average was 86,700 MWH.
- On average, Iraqis outside of Baghdad are now receiving more hours of power than they did before the war. In Baghdad, there is less power (eight hours a day) than before the 2003 conflict. However, pre-war power distribution emphasized Baghdad's needs over the rest of the country.
- Slow progress in this sector can be attributed to many of the same challenges as found in other sectors: security, increased demand caused by growth and subsidies, widespread pre-war deterioration in the sector, corruption and theft, poor equipment operation and maintenance, and fuel shortages.

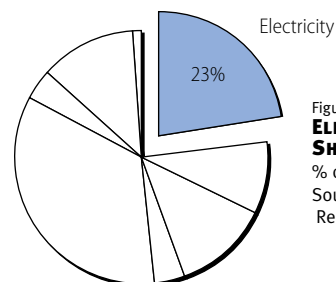


Figure 2-24  
**ELECTRICITY SECTOR AS A SHARE OF IRRF FUNDS**  
 % of \$18.439 Billion  
 Source: DoS *Iraq Weekly Status Report*, 03/29/06



Figure 2-25 shows reconstruction activity in this sector by governorate.

## IRRF-funded Activities in the Electricity Sector

Only 58 projects in this sector (9.6%) have yet to begin,<sup>206</sup> and 44% are complete. To date, 63 design/build (D/B) projects valued at \$758 million have been completed and are operational. The 51 ongoing D/B projects valued at \$496 million are expected to be completed by June 2007.<sup>207</sup> All GRD-PCO projects in this sector will be completed by January 2008.<sup>208</sup>

During the reporting period, \$240 million was disbursed in this sector—an increase of 67% from last quarter's \$144 million. More than 80% of the sector's funding has been obligated, and nearly half (48%) of the funding has been expended. Figure 2-26 shows the status of funds in the electricity sector, as of March 29, 2006.

## Key Projects Completed and Underway

The U.S. reconstruction program in the electricity sector has three major types of projects:

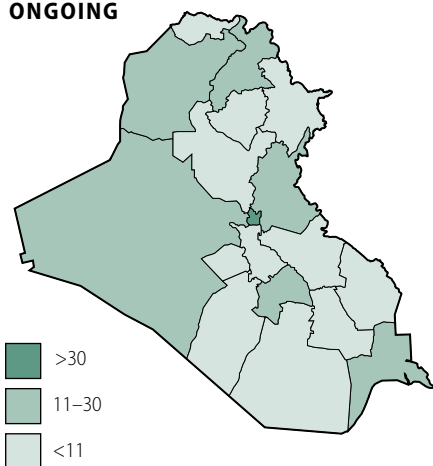
- *Generation facilities*, which produce capacity for the power system
- *Transmission networks*, which carry that power throughout the country
- *Distribution networks*, which deliver the transmitted power to local areas, homes, and businesses

### GENERATION

One of the largest IRRF-funded generation projects, the Al-Doura power plant, will add 280 MW to the power grid and serve more than 1.5 million people in the Baghdad area.<sup>209</sup>

Khor Al Zubayr power plant, the other large power-generation facility constructed with IRRF 2 funds, was completed at the end of last

### ONGOING



### COMPLETED

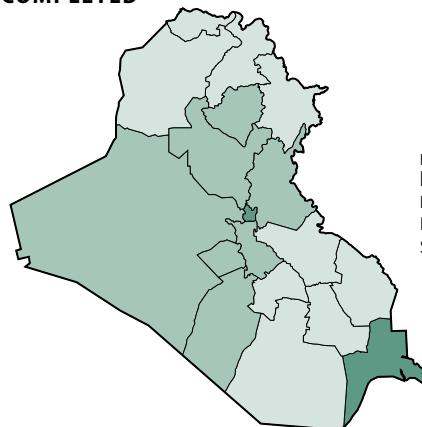


Figure 2-25  
**ELECTRICITY PROJECTS  
BY GOVERNORATE**  
Number of Projects  
Source: IRMS—IRMO Rollup File, 03/31/06

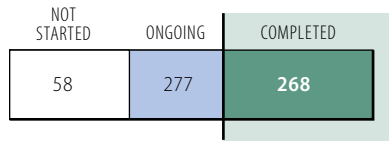


Figure 2-27

## STATUS OF ELECTRICITY PROJECTS

Number of Projects

Source: IRMS—IRMO Rollup File, 03/31/06



Planned (603)  
\$2.83B

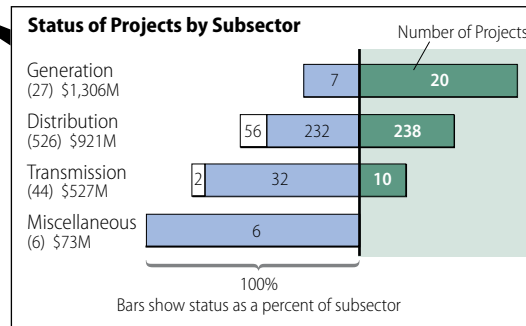
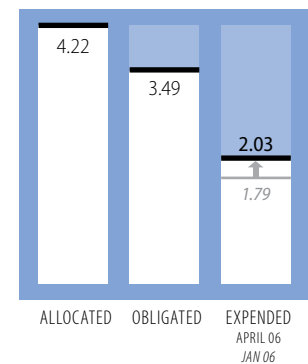


Figure 2-26

## STATUS OF ELECTRICITY FUNDING

\$ Billions

Source: DoS Iraq Weekly Status Report, 03/29/06



quarter, and the plant is now operational. It is supplying 250 MW of power for the 1.5 million residents of Basrah.<sup>210</sup>

GRD-PCO completed the refurbishment of a turbine at the Nassiriyah power plant, restoring 28 MW of generation capacity at a cost of \$21 million.<sup>211</sup> Additionally, GRD/PCO completed the refurbishment of three gas turbine units, restoring 64.5 MW at the Petrochemical Power Plant.<sup>212</sup>

As the construction component of the power generation program wraps up, the focus is now on improving Iraq's capacity to maintain the plants and continue to develop the sector independently. The execution of the newly awarded long-term Operations and Maintenance (O&M) support contract is critical to preventing the deterioration of the power generation plants.

## TRANSMISSION

During this reporting period, \$305 million of deferred funds were reinstated to the sector to fund transmission projects in Iraq. This funding will be used to build substations and to supplement existing overhead lines.<sup>213</sup> Eleven transmission projects were started this quarter.<sup>214</sup>

## DISTRIBUTION

GRD-PCO reports that 46 distribution projects were completed this quarter, and 42 distribution projects started.<sup>215</sup> During this quarter, SIGIR conducted an assessment of the \$3.4 million Erbil City Transformer project. The SIGIR team observed good construction, effective project management, and adequate



sustainment efforts at the project site. If work continues in this fashion, the team concluded that the project will improve electricity service in the area. For a summary of the assessment, see Section 3 of this Report.

### The Outputs of IRRF-funded Electricity Projects

The outputs of U.S. electricity projects are measured by generation capacity added in megawatts. U.S. reconstruction projects have contributed more than 2,700 MW of generation capacity. When all projects are complete, the

United States is expected to have contributed more than 3,700 MW of generation capacity.

Despite the success of U.S. projects, generation capacity now falls below the pre-war level and the goal for summer 2006. Table 2-9 shows the estimated pre-war level and summer goal compared to the current level. It is important to note that the current status of 4,004 MW provides only a snapshot, and production can be influenced by many factors, including weather, security problems, and system maintenance. Table 2-10 compares the summer 2006 goal for generation capacity with cur-

#### CURRENT ELECTRICITY GENERATION CAPACITY VS. PRE-WAR LEVEL (Megawatts)

OUTPUTS METRIC	PRE-WAR LEVEL AS OF MARCH 2003	IRAQ GOAL FOR JULY 2006	CURRENT STATUS AS OF MARCH 28, 2006
Generation Capacity	4,500	6,000	4,004

Sources: Pre-war Level: UN/World Bank Joint Iraq Needs Assessment, 2003, p. 28. Note: GAO recently reported the pre-war level as 4,300 MW (GAO Report 06-697T, April 25, 2006, p. 19).  
Goal: Joint U.S.-Iraqi Electricity Action Plan, March 12, 2006, p. 2.  
Current Status: IRMO, Weekly Status Report, March 28, 2006.

TABLE 2-9

#### ELECTRICITY GENERATION PROJECT OUTPUTS

IRAQ GOAL FOR JULY 2006	CURRENT U.S. CONTRIBUTION, AS OF MARCH 31, 2006	CURRENT U.S. CONTRIBUTION AS A PERCENTAGE OF JULY 2006 GOAL, AS OF MARCH 31, 2006	TOTAL PLANNED U.S. CONTRIBUTION
6,000 MW	2,710 MW	45%	3,710 MW

Sources:  
Goal: Joint U.S.-Iraqi Electricity Action Plan, March 12, 2006, p. 2.  
Current Status: IRMO, Weekly Status Report, March 14, 2006.  
Current and Total U.S. Contributions: SIGIR Data Call from DoS/NEA-I, March 24, 2006.

TABLE 2-10



rent U.S. contributions and the U.S. goal for contributions.

## Outcomes of IRRF Projects

During this reporting quarter, the “hours of power per day” increased by several hours to exceed pre-war levels countrywide. In Baghdad, this metric continues to lag behind pre-war levels, in part because of a strategic

decision to provide power more equitably throughout the country. Current hours of power per day in Baghdad have been rising to near the 2006 Iraqi goal supported by the U.S.-Iraqi Joing Electricity Action Plan.

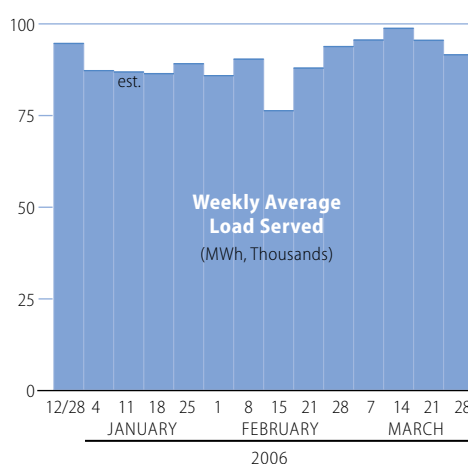
A comparison between the current load served and the same quarter last year shows that the load served has increased: for the week ending March 27, 2005, load served was 86,700 MWh.<sup>216</sup> Load served averaged 91,092 MWh per day for the week ending March 28, 2006.<sup>217</sup> However, this is well below the goal of 110,000 MWh.<sup>218</sup> Figure 2-28 shows the weekly average load served during this quarter.

Table 2-11 demonstrates the outcomes of U.S. projects in relation to the pre-war levels.

## Challenges

SIGIR continues to examine the challenges in this sector reported during last quarter’s Report, including rising demand that now exceeds generating capacity. This quarter, SIGIR also looked at O&M in the electricity sector. Other challenges include the lack of a centralized monitoring and control system and a shortage of fuels to operate power plants.<sup>219</sup>

Figure 2-28  
**ELECTRICITY LOAD SERVED**  
Megawatt Hours (MWh)  
Source: IRMO Weekly Status Reports, 12/28/05–03/28/06



## CURRENT OUTCOMES VS. PRE-WAR LEVEL AND GOALS

OUTCOME METRIC	PRE-WAR LEVEL	IRAQ GOAL FOR JULY 2006	CURRENT STATUS AVERAGE OF WEEK ENDING 3/28/06
Iraq Hours of Power/Day	4-8	12	16
Baghdad Hours of Power/Day	16-24	12	8

Sources:  
Pre-War level: Department of State Briefing by U.S. Embassy Baghdad, November 30, 2005.  
Goals: Joint U.S.-Iraqi Electricity Action Plan, March 12, 2006, p. 2.  
Current Status: IRMO, Weekly Status Report, March 28, 2006.

TABLE 2-11



The deteriorated infrastructure in Iraq continues to affect reconstruction efforts in the sector. Infrastructure security also remains a problem. Security in the electricity sector was the subject of SIGIR Audit 06-009, which reviewed the Task Force Shield programs to protect the electric and oil infrastructure. The electricity component of this security program—EPSS—was found to be unsuccessful and “barely got started before it was cancelled.”

### ISING DEMAND

Demand for electricity in Iraq continues to outstrip the total generation capacity by more than 60% (6,429 MW demanded vs. 4,004 generation capacity).<sup>221</sup> Thus, generators are commonly used in Iraqi homes to make up for the shortage. DoS estimates that private generators provide up to 2,000 MW of generating capacity.<sup>2-z</sup>

The surge in demand from pre-war levels stems from a growing economy, fueled by Iraqi purchases of new appliances and electronics and by the subsidized prices charged for electricity by the Iraqi government. According to the World Bank, Iraqis pay less than one cent per kilowatt-hour.<sup>222</sup> This is much lower than rates in other countries in the region: Iranians, Jordanians, and Syrians pay 1.5 to 5 cents per kilowatt-hour.<sup>223</sup> The artificially low rate provides little curb on demand.

Electricity revenues in Iraq also suffer from a collection rate of less than 30%,<sup>221a</sup> partly



Electricity transmission tower

because of inoperable meters and the dangerous work environment.<sup>225</sup> The “collection of revenue is the best method to encourage the efficient use of electricity and thereby reduce the total usage.”<sup>226</sup>

The supply shortage has ramifications for every key infrastructure sector. Water supply stations often require on-site generators to operate. And the oil sector would virtually shut down without power because pump stations, refineries, and injectors cannot function without electricity.





## OPERATIONS AND MAINTENANCE

SIGIR continues to examine the O&M problem in the electricity sector, where estimates are that the lifespan of a generator in Iraq is 10-25% of the lifespan of properly maintained equipment.<sup>227</sup> The joint action plan for electricity from IRMO and the Iraqi government calls for an increase in generation capacity of 854 MW by July 2006, which will be achieved through new O&M projects and programs.<sup>228</sup> The United States is partnering with the Iraqi government to implement a comprehensive O&M plan.<sup>229</sup> This \$80 million program is part of the joint action plan and will develop the technical capacity of Iraqis, which is vital to the sustainability of the electricity system. The program includes:

- on-site training and mentoring at eight sites
- communication, control, and monitoring of power plants
- training on gas turbine technology<sup>230</sup>

The U.S. government and the Iraqi Ministry of Electricity are concentrating on securing the sustainable operations of completed generation facilities in order to maximize power generation for the summer. The Ministry of Electricity and U.S. government have developed, and are beginning to implement, a coordinated sustainability plan that includes the execution of improved inspections, provision of spare parts and consumables, and regular maintenance for plant equipment. The production of electricity in Iraq will decline unless the plan's objectives are realized and incorporated into the daily operation of Iraqi-controlled facilities.<sup>231</sup>





## STATUS OF THE OIL AND GAS SECTOR

This review updates the status of U.S. reconstruction projects to increase Iraqi oil production and exports, improve natural gas production, and enhance critical fuel-refining capabilities. Project work is designed to maintain major production fields and to repair key facilities and infrastructure.

SIGIR makes these observations about progress in the oil and gas sector:

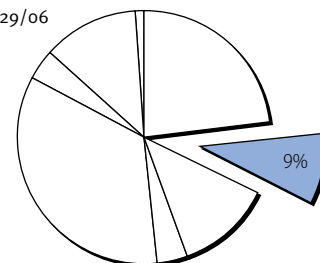
- Expenditures in the sector increased to 47% of allocated funds this quarter. At the current rate of expenditure, this sector will not be complete until after the end of 2006.
- Oil production, which is at 2.18 million barrels per day (BPD), is below pre-war levels and also below the Ministry of Oil goal of 2.3 million BPD.
- Exports are below pre-war levels and relatively stagnant.
- The reasons for the low production and export levels are the severely deteriorated infrastructure, insurgent attacks, and limited sustainment capability.
- Corruption in the oil and gas sector is a continuing problem that could have devastating effects on both the progress of sector reconstruction and on the overall status of the reconstruction and democracy-building effort in Iraq.

The situation in the oil and gas sector has not changed considerably since the January 2006 Report. Crude oil production climbed back to 2.0 million BPD in early March 2006, having averaged lower output levels in January and February, chiefly because of storage and weather issues in the Persian Gulf. Production throughout March 2006 has steadily increased each week, reaching 2.18 million BPD during the last week of the month.

Although U.S.-funded projects continue to progress in developing the sector, Iraqis are not yet fully benefiting from their nation's enormous oil supply. Security and critical infrastructure challenges have not improved significantly since the last quarter, and allegations of corruption in the Ministry of Oil present a substantial challenge to reconstruction.

Total funding for the oil and gas sector has changed little since last quarter, increasing by nearly \$15 million to \$1.736 billion because of proposed funding increases for the Al Fatah

Figure 2-29  
**OIL AND GAS SECTOR AS A  
 SHARE OF IRRF FUNDS**  
 % of \$18.439 Billion  
 Source: DoS Iraq Weekly Status Report, 03/29/06





crossing and the Infrastructure Sustainment Program.<sup>232</sup> Figure 2-29 shows the current allocation in oil and gas sector funding as a percentage of total IRRF funding.<sup>233</sup>

The total number of planned projects in this sector increased to 180, including 120 Engineering and Procurement (EP) and 60 Engineering, Procurement, and Construction (EPC) projects.<sup>234</sup> The EP projects are non-construction, primarily to provide spare parts, training, procurement, and other services. These projects include:

- 57 projects executed by design-build contractors for Iraqi operating companies that worked on construction
- 21 government procurement projects
- 27 area task orders
- 15 capacity-development projects for training Ministry of Oil employees and the personnel of Iraqi operating companies<sup>235</sup>

Table 2-12 shows the completion status for EP and EPC projects as of the end of the quarter. Figure 2-30 shows reconstruction activity in this sector by governorate. Figure 2-31 shows the status of projects by subsector.

### IRRF-funded Activities in the Oil and Gas Sector

Critical oil and gas facilities are nearing completion, and U.S. reconstruction officials hope that construction in the sector will be complete by the end of this year.<sup>236</sup>

During this reporting period, \$170 million was expended—up from the \$110 million expended last quarter—bringing the cumula-

tive total to \$820 million. Though almost 90% of the sector's funding has been obligated, only 47% has been expended. The next quarter is expected to have the largest project completion rate, assuming that project schedules hold. If the pace of expenditures for the last six months continues, construction will not be complete until well into next year. Figure 2-32 shows the status of funds in the oil and gas sector.

### Key Oil and Gas Projects Completed and Underway

The Al Basrah Oil Terminal (ABOT) task order was 30% complete as of April 6, 2006,<sup>237</sup> comprising 13 individual projects scoped that will provide a total crude-oil loading capacity of 6 million BPD.<sup>238</sup> PCO reported to SIGIR that, as of March 31, 2006, 3 of the 13 projects had been completed,<sup>239</sup> upgrading the safety, effectiveness, and efficiency of loading crude oil onto tankers. This refurbishment helped increase the load-out capacity of one portion of the terminal to its capacity of 3 million BPD.<sup>240</sup>

The Iraqi Ministry of Oil is beginning to work on a system to meter (and thus measure) all oil production and the flow of petroleum products to foreign markets for export. This metering initiative will complement the metering project being executed by the United States at ABOT,<sup>241</sup> which is 29.9% complete.<sup>242</sup>

Although the Al Fatah pipeline crossing initiative in northern Iraq has suffered repeated delays associated with security, logistical, and weather problems, it is now approaching completion. Its estimated completion date is May 2006, and the project is 96% complete,



OIL AND GAS

## EP vs. EPC PROJECT STATUS SUMMARY

TYPE	TOTAL PROJECTS	NOT STARTED	ONGOING	COMPLETED
EP <sup>1</sup>	120	20	72	28
EPC <sup>2</sup>	60	5	42	13

Sources: <sup>1</sup>GRD Bi-weekly Situation Report, April 3, 2006, p. 9; <sup>2</sup> Iraq Reconstruction Management System (IRMS), as of March 31, 2006.

TABLE 2-12

Figure 2-31

### STATUS OF OIL AND GAS PROJECTS

Number of Projects

Source: IRMS—IRMO Rollup File, 03/31/06

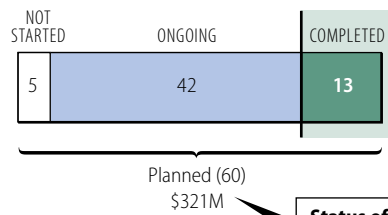
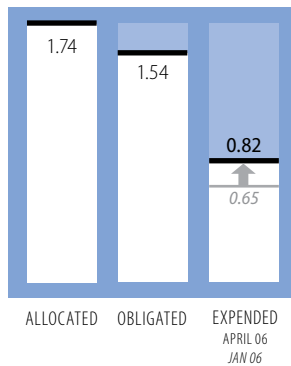


Figure 2-32

### STATUS OF OIL AND GAS FUNDS

\$ Billions

Source: DoS Iraq Weekly Status Report, 03/29/06



### Status of Projects by Subsector

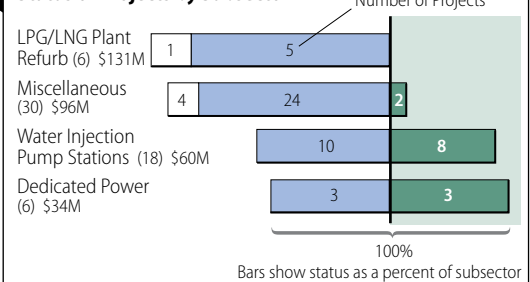


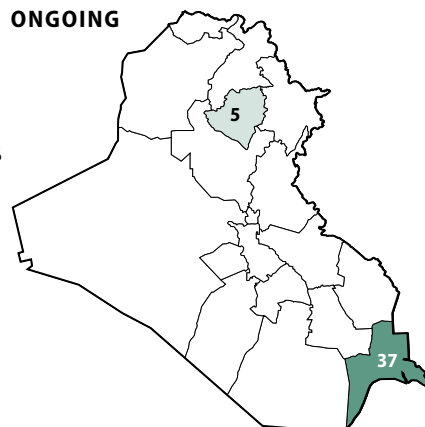
Figure 2-30

### OIL AND GAS PROJECTS BY GOVERNORATE

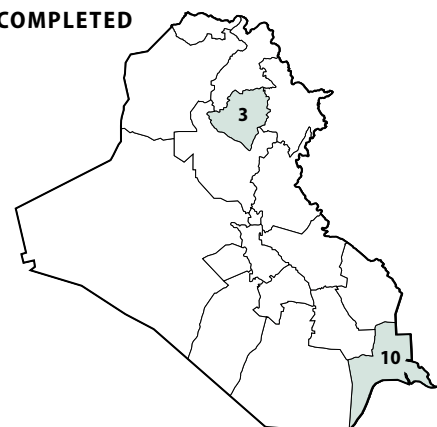
Number of Projects

Source: IRMS—IRMO Rollup File, 03/31/06

### ONGOING



### COMPLETED





Loading oil tankers at the Al Basrah Oil Terminal

with \$64 million of work accomplished out of a budget of \$67 million.<sup>243</sup> Al Fatah connects crude oil and natural gas distribution from the northern oil fields in Kirkuk to the Baiji Refinery and power plants. The crossing also carries oil through the Iraq-Turkey Pipeline (ITP), the northern route for oil exports. The project is expected to add an additional 300,000 BPD of capacity to the ITP.<sup>244</sup>

At the Qarmat Ali water injection plant, a task order was initiated to provide treated water for injection wells to maintain reservoir pressure and help sustain production levels in one of the largest southern fields.<sup>246</sup> The project will result in increased oil production capacity of 200,000 BPD. Phase I was completed in November 2005, and Phase II is scheduled for

completion by December 2006.<sup>247</sup>

GRD-PCO also reported progress on 14 Gas-Oil Separation Plants (GOSPs) being refurbished throughout Iraq.<sup>250</sup> GOSPs separate associated gas, water, and salts from crude pumped from the well. The GOSPs already completed in northern Iraq have added 300,000 BPD of crude oil production capacity.<sup>251</sup> The 14 refurbished GOSPs are expected to have the capacity to treat 1 million BPD of crude oil.<sup>252</sup> The GOSP projects are expected to be completed by September 2006.<sup>254</sup>

According to GRD-PCO, five Natural Gas Liquids/Liquefied Petroleum Gas (NGL/LPG) processing plants and storage facilities are currently undergoing refurbishment,<sup>255</sup> with the objective of producing 3,000 tons per day



Liquid petroleum gas plant at Khor Zubair

(TPD) of LPG to meet domestic demand. These projects will be completed by September 2006.<sup>256</sup> The SR3R Compressor Station in Basrah, which was 57% complete as of mid-March, is considered a critical production component toward reaching the LPG goal of 3,000 TPD.<sup>257</sup>

### Outputs of IRRF-funded Oil and Gas Projects

Progress has been made in improving outputs in this sector, but since reconstruction began 95 oil and gas projects have been descoped or cancelled. Some of these include projects that address flared gas recovery, expansion of existing storage capacity, and pipeline repairs and upgrades.<sup>258</sup> Projects were descoped or

cancelled because they were not required to achieve the oil program objectives or because the Ministry of Oil took control of them.

### Outcomes of IRRF-funded Oil and Gas Projects

There are at least two ways to measure overall progress in reconstructing the oil and gas sector:

- production capacity, which measures how many barrels of crude oil can be pumped on a daily basis
- daily production levels

Table 2-13 presents both of these metrics and weighs them against their respective pre-war levels and overall U.S. and Iraqi goals.

The Iraqi budget assumes a crude oil pro-





duction average of 2.3 million BPD for 2006,<sup>261</sup> gradually increasing production to hit 2.5 million BPD by the end of this year. For much of 2006, however, oil production has remained below 2.0 million BPD because of logistical bottlenecks in the south caused by rough seas and a lack of storage, which forced wells to be shut down. Production crept above 2.0 million BPD in March 2006.

Insurgent attacks account for a significant proportion of diminished output in the north, particularly when insurgents target crude pipelines from the Kirkuk oil fields to Baiji. This results in decreased production of crude oil, which impacts the production of refined fuel and thus the generation of electricity.

Northern production averaged 424,000 BPD in 2004 and 312,000 BPD in 2005.<sup>262</sup> Current production capacity for the northern fields is estimated to be about 600,000 BPD.<sup>263</sup> Southern crude oil production has a greater oil production capacity, amounting to approximately 1.9 million BPD.<sup>265</sup> It provides the majority of Iraqi national production, averaging 1.83 million BPD in 2004 and 1.77 million BPD in 2005.<sup>266</sup> Figure 2-33 shows a timeline of oil production levels.

## EXPORTS

The oil and gas sector remains the economic mainstay of the Iraqi economy: crude oil exports account for about 94% of Iraq's national income. In 2005, oil exports were estimated to generate \$23.5 billion in revenue,<sup>268</sup> but this

positive outcome had more to do with high crude prices than production levels. Exports suffered a variety of setbacks throughout 2005, including insurgent attacks in the north, bad weather, low storage capacity in the south,<sup>269</sup> slower than planned reconstruction, and allegations of corruption in Iraqi ministries. Revenues from oil exports in 2006 are forecast to reach approximately \$28 billion by the end of this year.<sup>270</sup> Figure 2-34 shows a timeline of monthly exports and associated revenues.

However, exports decreased from a monthly average of 1.37 million BPD in February 2006 to 1.34 million BPD in March, mostly because of poor weather conditions at ABOT.<sup>271</sup> Overall, average losses in potential export earnings between October and December 2005 were approximately \$90 million per month, and these losses continued into 2006.

## REFINING

Domestic refining of critical refined fuels has been limited, particularly regarding domestic fuels. The causes for unstable refining capacity include: post-war accelerated product demand, insurgent attacks on critical oil infrastructure, dilapidated infrastructure, weak operations, and overdue maintenance.<sup>273</sup>

Unstable production of critical refined fuels has affected Iraqi access to domestic commodities like gasoline and kerosene, and adversely impacted other sectors. Most notably, the electric sector has suffered many fuel shortages that have caused blackouts.<sup>275</sup> During these





### CURRENT OIL AND GAS PROJECT OUTCOMES VS. PRE-WAR LEVELS AND GOALS

OUTCOMES METRICS	PRE-WAR LEVEL (2003) <sup>259</sup>	CURRENT STATUS	U.S. END- STATE GOAL	IRAQ END- STATE GOAL
Oil Production Capacity (million BPD)	2.6	2.5	2.8	2.8
Oil Production (Actual) (million BPD)	2.58	2.18 <sup>c</sup>	2.8 <sup>a</sup>	2.3 <sup>b</sup>
Export Levels (million BPD)	Not Available	1.32	2.2 <sup>a</sup>	1.65 <sup>b</sup>
Natural Gas Production (MSCFD)	Not Available	600	800	Not Available
LPG (TPD)	Not Available	1,200	3,000	Not Available

<sup>a</sup>According to a DoS energy expert, these targets are not annual averages.

<sup>b</sup>According to a DoS energy expert, these targets are annual averages.

<sup>c</sup>March 27–April 2, DoS *Iraq Weekly Status Report* p. 22

Sources: DoS *Iraq Weekly Status Report*, DOE Country Analysis Brief, meetings and interviews with SIGIR, DoS briefing by U.S. Embassy-Baghdad Oil Metrics (11/30/2005), and “The Oil Story of Iraq,” by PCO (3/2006)

TABLE 2-13

blackouts, water and sewage processing facilities must rely on on-site electricity generators. Figure 2-35 shows days of stock for critical refined fuels since January 2005.

The low domestic production levels of critical refined fuels have led to high demand for costly imports from abroad, most notably from Turkey. Problems associated with the Iraqi government making import payments on time have led Turkish suppliers to refuse to continue delivering these products until being guaranteed payment.<sup>277</sup> According to a SIGIR interview with a U.S. government oil expert, no new truck shipments have loaded from Turkey since January 21, 2006. Fuel trucks that were waiting to enter Iraq were allowed to proceed as scheduled; the last of these trucks reached their destinations in Iraq in early March. On February 15, 2006, an initial agreement was reached, but only two payments were subse-

quently made to Turkish exporters, and the dispute continues.

### Challenges

The World Bank reports that the short-term outlook for a significant increase in oil production and exports in Iraq remains uncertain. Maintaining current production levels would require new annual investments of at least \$1 billion.<sup>278</sup> These projections indicate the difficulty ahead in the effort to reach both Iraqi- and U.S.-stated goals for the sector.

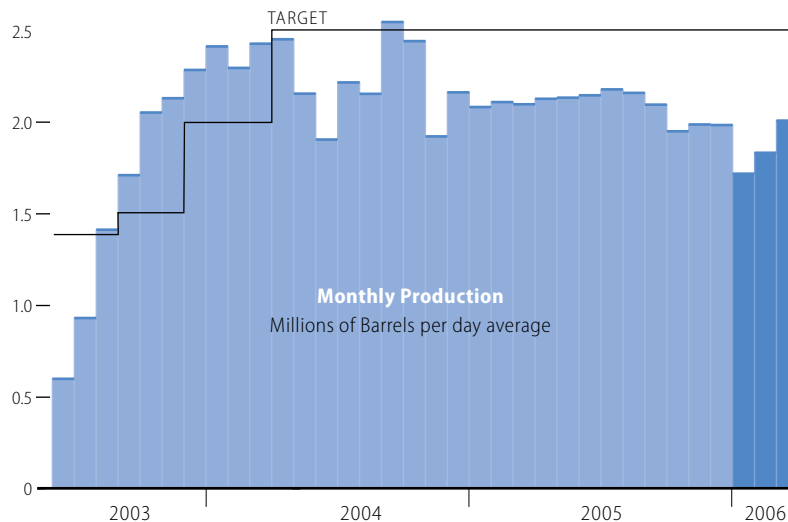
### SECURITY

The World Bank reports that “oil production and exports remain heavily constrained by rundown facilities and sabotage.”<sup>279</sup> Attacks on oil infrastructure remain a serious problem, despite attempts to bolster infrastructure secu-



## OIL AND GAS

Figure 2-33  
**CRUDE OIL PRODUCTION**  
 (Millions of BPD)  
 Source: IRMO



rity forces. The Ministry of Defense is responsible for guarding pipelines, while the OPF, under the control of the Ministry of Oil, is tasked with guarding all other Iraqi oil industry assets.<sup>280</sup> SIGIR's initial assessment (SIGIR 06-009) of programs to train and deploy Iraqi oil protection forces indicated that they have been largely unsuccessful. See Sector 3 of this Report for a full discussion.

Attacks on the northern pipeline have reduced northern oil exports, which account for approximately 15-20% of all oil exports.<sup>281</sup> These attacks have placed a greater production burden on the southern fields and facilities, which are constrained by limited storage facilities. For instance, on February 1, 2006, insurgents attacked a new desulphurization plant in Kirkuk, which reportedly has a capacity of 1 million BPD. An older plant was brought online to make up for the loss, but it has a capacity of only 500,000 BPD, resulting in a

substantial drop in northern production.<sup>282</sup>

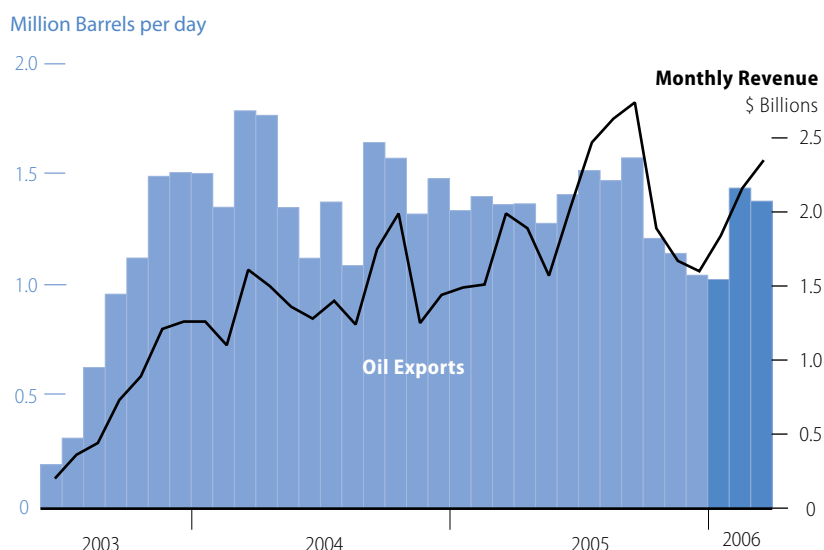
According to the World Bank, the “volatility of oil export revenues may hamper the prospects of Iraq’s reconstruction program.”<sup>283</sup> Moreover, the repositioning of financial resources within the sector to address security concerns has had a deleterious effect on overall oil and gas development.<sup>284</sup>

## SUSTAINMENT

The sustainment of U.S.-funded projects continues to be an important aspect of successfully developing the oil and gas sector. SIGIR reported last quarter that U.S. reconstruction agencies have launched a variety of programs aimed at bolstering capacity development and improving operations and maintenance practices at oil and gas facilities. Reconstruction officials have also launched a number of training courses to address petroleum refining,



Figure 2-34  
**OIL EXPORTS VS. REVENUE RAISED**  
 Source: DoS Iraq Weekly Status Reports,  
 06/2003 – 03/2006



project management, distribution and marketing, leadership, human resource management, and financial methods.<sup>285</sup>

decision to not focus more heavily on natural gas and refinery refurbishment is also becoming a sector reconstruction challenge effort.

### DETERIORATED INFRASTRUCTURE

In the January 2006 Report, SIGIR identified the deteriorated state of Iraq's oil infrastructure as a significant factor slowing the progress of restoring oil production.

The decision to not prioritize the refurbishment of existing storage facilities or construct new ones, for instance, has affected production, particularly in the south, where exports are impacted by external variables like bad weather in the Gulf, which has lowered production rates and led to harmful crude oil re-injection practices. The decision to descope or cancel a project related to expanding existing storage capacity is potentially problematic given the limited existing storage capacity. The

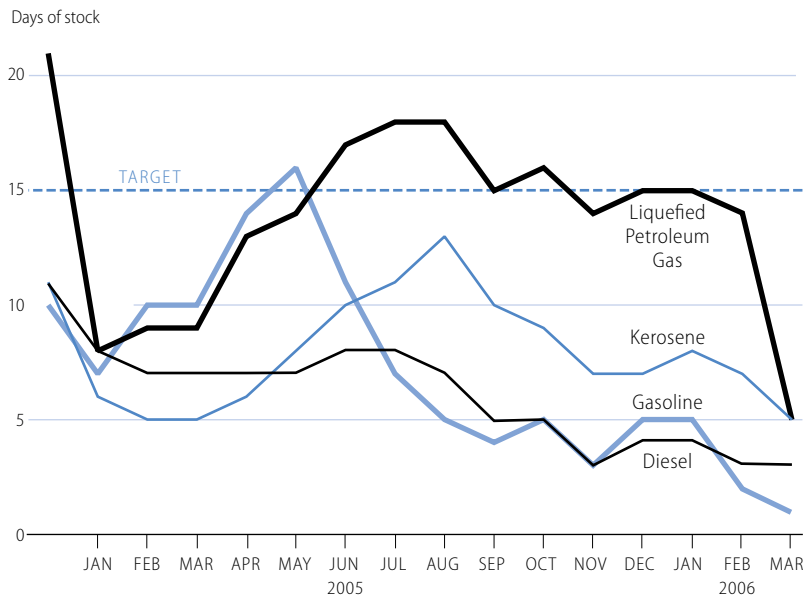
### ALLEGATIONS OF CORRUPTION

In 2005, Transparency International ranked Iraq 136<sup>th</sup> worst of 159 countries that suffer from corruption.<sup>287</sup> In the oil and gas sector, in particular, continued market distortions encourage illicit activity and corruption. These market distortions are driven primarily by large government subsidies and state domination of the economy.<sup>288</sup>

According to one analysis, "corruption has diverted much of Iraq's oil revenue from reconstruction to the bank accounts of government officials and their friends in organized crime."<sup>289</sup> A high-ranking reconstruction official stated in mid-February 2006 that corruption is particularly troubling in the oil and



Figure 2-35  
**INVENTORIES OF CRITICAL  
 REFINED FUELS**  
 Days of Stock  
 Source: DoS *Iraq Weekly Status Reports*,  
 01/2004 – 03/2006



gas sector precisely because of oil's economic significance and the lack of an effective and extensive metering system to gauge how much is being pumped relative to what is getting to market.<sup>290</sup> Moreover, the insurgency has reportedly been partly funded by corrupt activities within Iraq and from skimming profits from black marketers.<sup>291</sup>

The Iraqi government took steps in December 2005 to dismantle the fuel subsidy system. This is a positive start toward reducing the incentives for such corruption within the Ministry of Oil, as well as reducing smuggling.

Additionally, continued assistance to support the Commission on Public Integrity, the Board of Supreme Audit, and the Ministry of Oil's Inspector General can help mitigate the corruption in the sector.



## STATUS OF THE WATER SECTOR

This review updates the status of U.S. reconstruction projects in Iraq to increase access to clean water and sewerage services and improve water resource management capabilities. SIGIR makes the following observations about progress in the water sector:

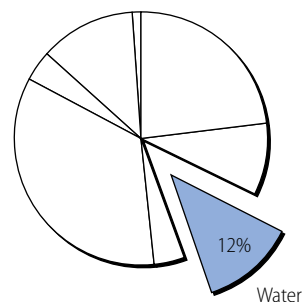
- The sector currently has allocations of \$2.13 billion. (See Figure 2-39.) Almost all projects in this sector have started, and nearly two-thirds are complete. However, only 42% of allocated funds have been expended, with the most expensive projects still to be completed.
- More than \$600 million is yet to be obligated in the water sector.
- The focus in this sector is now on completing projects and ensuring that they are sustained. The Water Sector Sustainment Program (WSSP), new in 2006, provides

\$110 million for sustainment activities.

- Currently, IRMO metrics show that 3.0 million more people have access to clean water, and an additional 5.1 million people have access to sanitation services since the 2003 conflict because of U.S. projects.

During this reporting period, \$202 million was expended, bringing the cumulative total to \$892 million for projects in this sector. Currently, 427 of the 676 total local projects are complete. In addition, 3 nationwide projects have been completed, and 17 nationwide projects are currently ongoing in the water sector. Figure 2-37 shows reconstruction activity in this sector by governorate.

Figure 2-36  
**WATER SECTOR AS A  
 SHARE OF IRRF FUNDS**  
 % of \$18,439 Billion  
 Source: IRMS-IRMO Rollup File, 03/31/06





## IRRF-funded Activities in the Water Sector

At the end of this reporting period, 63% of projects were complete. Water sector funding is not expected to be fully expended until 2008.<sup>295</sup> All USAID projects will be completed by August 2006.<sup>296</sup> Figure 2-38 shows the status of projects in the water sector.

During this quarter, \$202 million was disbursed—a sharp drop from last quarter’s \$295 million in expenditures. Although more than 70% of the sector’s funding has been obligated and nearly two-thirds of projects are complete, only 42% has been expended, as of March 29, 2006. Figure 2-39 shows the status of funds in the water sector.

## Key Water Projects Completed and Underway

SIGIR reported last quarter on the December 2005 insurgent attack on a convoy at the Erbil Water Treatment Plant project.<sup>297</sup> The project will now be delayed beyond the original completion date of April 2006.<sup>298</sup> The \$193 million project was 94% complete at the end of March, with final completion expected by June 2006. The plant will provide 144,000 cubic meters (m<sup>3</sup>) of water per day, which will serve 333,000 residents in Erbil and the surrounding areas.<sup>299</sup>

The Nassriya Water Treatment Plant is now 70% complete.<sup>300</sup> The completion date was originally estimated to be June 2006,<sup>301</sup> but was recently pushed back to October 2006.<sup>302</sup> The setback is attributed to tribal conflicts, a shortage of trained workers, the replacement of

an unqualified subcontractor, logistics delays at the Iraq-Kuwait border, foundation problems, and schedule and safety issues at some of the water tank construction sites.<sup>303</sup> Valued at \$234 million, the completed water treatment plant will provide 240,000 m<sup>3</sup> of water per day serving more than 555,000 people.<sup>304</sup>

122 of the 157 Small Water Rehabilitation Program (PW-90) projects have now been completed; these projects, valued at \$63 million, will benefit 1.65 million Iraqis.<sup>305</sup> An additional \$50 million for small water projects (PW-99 and PW-101) has been earmarked for an estimated 100 new projects.<sup>306</sup>

A \$30.1 million rehabilitation of the Baghdad water main was completed this quarter, which will provide better service reliability to the people of Baghdad.<sup>307</sup> During this quarter, GRD-PCO cancelled the Halabja Water Supply project (\$1.9 million) and descoped four projects valued at \$17.2 million.<sup>308</sup>

Progress continues to be made on the joint Iraqi-USAID initiative for developing a national Strategy for Water and Land Resources for Iraq, the first nationwide water resource master plan completed for the country since 1982. The 14-month Phase 1 of the plan includes data collection and analysis related to water resources, land use, water quality, and crop requirements. The overall goal of the strategy is “to provide a sound and comprehensive basis for the management and development of Iraq’s water and land resources over the next few decades, together with a framework and methodology for ongoing updates to the planning process.”<sup>309</sup>



Figure 2-37  
**WATER PROJECTS BY GOVERNORATE**  
 NUMBER OF PROJECTS  
 Source: IRMS-IRMO Rollup File, 03/31/2006

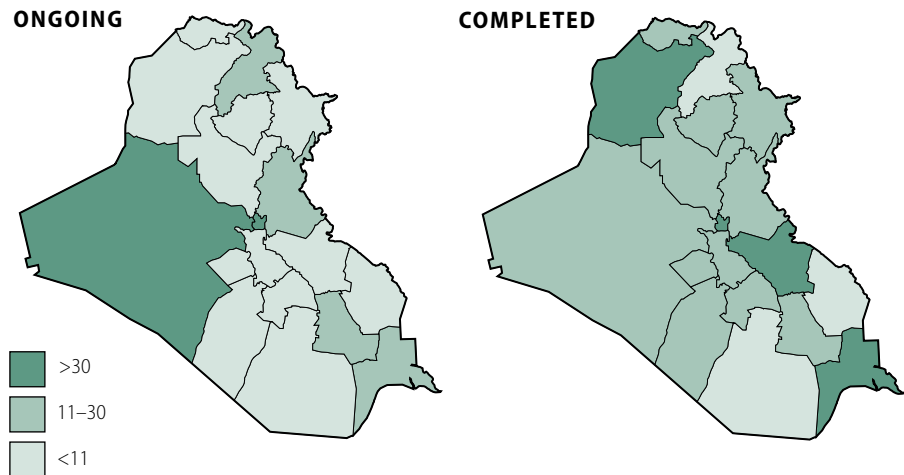


Figure 2-39  
**STATUS OF WATER FUNDS**  
 \$ Billions  
 Source: DoS Iraq Weekly Status Report, 03/29/06

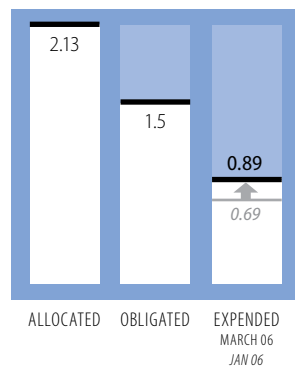
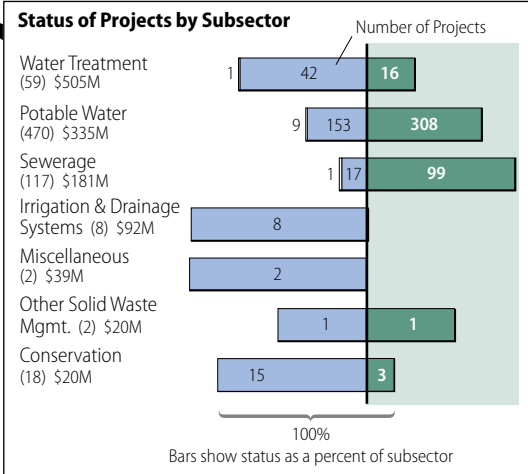
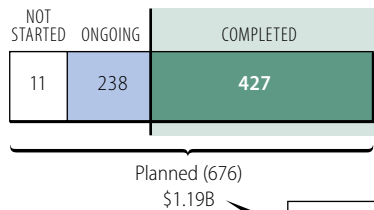


Figure 2-38  
**STATUS OF WATER PROJECTS**  
 Number of Projects  
 Source: IRMS-IRMO Rollup File, 03/31/06





Water treatment plant at Nassriya

## Outputs of IRRF-funded Projects

A 2005 Government Accountability Office (GAO) report concluded that better performance metrics and indicators are needed in the water sector to evaluate U.S. reconstruction efforts. To that end, SIGIR now reports a new output metric, developed by IRMO in cooperation with Iraqi experts, that estimates cubic meters per day of restored or new capacity. With this new metric, additional system capacity for each U.S. project is calculated by taking the difference between the actual system capacity before implementation and the capacity of the system after reconstruction.<sup>311</sup>

To date, the United States has repaired or rehabilitated 19 potable water treatment facilities and 9 centralized sewage treatment facilities.<sup>313</sup> The outputs of these IRRF-funded projects appear in Table 2-14, which shows the current capacity created by completed U.S. water projects and the anticipated capacity at the end-state, when all planned U.S. projects are completed.

## Outcomes of IRRF-funded Projects in the Water Sector

There are a range of estimates of the number of Iraqis who had access to water before the war. Before the first Gulf War, Iraq had an efficient water system that was accessed by 95% of the urban population and 75% of the rural population.<sup>314</sup> In 2000, the UN and World Bank estimated that roughly 19 million Iraqis had access to water. During the build-up to the 2003 conflict, the continuing sanctions caused a steady decline in access. Last quarter, SIGIR reported that 12.9 million people had access to water before the war.<sup>315</sup> Other estimates of pre-war coverage range from 9.5 to 14 million people.<sup>316</sup>

It is difficult to measure accurately the total number of Iraqis with access to clean water and sanitation services, but IRMO's new outcome metric to measure the number of people who benefit from U.S. projects has focused the assessment on value added by U.S. projects. This metric for potable water service includes a





Table 2-14

## CURRENT U.S. WATER PROJECT OUTPUTS AND ANTICIPATED END-STATE

OUTPUTS (Maximum additional system capacity)	CURRENT STATUS AS OF 03/21/06	ANTICIPATED END-STATE (APRIL 2007)
Potable water	1.1 million cubic meters per day	2.5 million cubic meters per day
Sanitary sewage	1.2 million cubic meters per day	1.2 million cubic meters per day

Sources: IRMO, SIGIR Data Request, received via email on March 24, 2006, p.6.

physical loss factor of 60%, and the metric for sanitation service includes an infiltration factor of 20%. Table 2-15 summarizes data on the outcomes of U.S. water and sanitation projects.

### Challenges to Sustainment

SIGIR continues to track the progress of sustainment efforts for U.S. water sector projects. Last quarter, SIGIR noted that a 2005 GAO report found that more than a quarter of reviewed completed projects were not operating at all or were operating at a lower capacity than expected. Since that time, the Water Sector Sustainment Program (WSSP), a new \$110 million sustainment project has been initiated

to address that problem.<sup>317</sup> WSSP builds on two other major sustainment programs:

- USAID's Water Sector Institutional Strengthening Program (\$25 million)<sup>318</sup>
- GRD-PCO's Ministry of Municipalities and Public Water Resources (MMPW) Management Systems training program (\$14.5 million)<sup>319</sup>

According to GRD-PCO, WSSP will include both operations and maintenance support and assistance and capacity development activities. It will ensure that U.S.-funded assets are operated effectively in the near term, while creating favorable conditions for sustained operation by

Table 2-15

## CURRENT OUTCOMES OF U.S. PROJECTS AND ANTICIPATED END-STATE

OUTCOME METRIC (Additional people potentially served at a standard level of service, considering actual system conditions)	CURRENT STATUS 03/21/06	ANTICIPATED END-STATE
Potable water	3.0 million people	8.4 million people
Sanitary sewage	5.1 million people	5.3 million people

Sources: IRMO, SIGIR Data Request, received via email on March 24, 2006, p.6; IRMO, Information Memorandum from Acting IRMO Director to Deputy Chief of Mission, April 19, 2006.



the MMPW, the Ministry of Water Resources (MWR), and Baghdad Amanat (Mayoralty).<sup>320</sup> Capacity-development activities conducted through WSSP will be directly related to sustaining U.S.-funded assets and will include:

- training
- equipment
- technical assistance
- mentoring in the areas of project management
- O&M planning and budgeting
- maintenance management systems
- inventory and warehousing
- vehicle fleet management
- infrastructure protection<sup>321</sup>

The Capacity Development Initiative (\$11.8 million) is training the technical and managerial staff of the MMPW and MWR in budget-

ing, water quality, project management, utility master planning, and other management skills. This program is scheduled to be finished at the end of this quarter.<sup>322</sup>

Project Partnership Agreements (PPAs) have also been used in the water sector to develop Iraqi capacity. PPAs are agreements between GRD-PCO and the responsible Iraqi organization to offer Iraqis the opportunity to award, administer, and oversee U.S. funded projects. PPAs will be used for a small number of water projects—including the construction of the Baladrooz Water Treatment Plant—to further build capacity in the MMPW and the MWR.<sup>324</sup>

## CONTRACTS UPDATE

During this quarter, \$944 million of the IRRF was obligated, increasing the cumulative total to \$16.3 billion.<sup>325</sup> As required under Public Law (P.L.) 108-106, as amended, SIGIR lists IRRF contracting actions through the SIGIR Iraq Reconstruction Information System (SIRIS). For a complete list of all IRRF-funded contracting actions received by SIGIR, see Appendix G on the Report CD.

No single U.S. government information system currently captures comprehensive project, contract, and financial information about Iraq reconstruction. To meet its statutory mandate, SIGIR designed and built SIRIS as a repository for all project, contract, and financial data on Iraq reconstruction. SIRIS serves as a warehouse of Iraq reconstruction data from all of the organizations authorized to obligate IRRF monies. The executing agencies feed contracting actions into SIRIS (subject to later validation) from facsimile copies of the source contract documents.

Since the January 2006 Report, SIGIR recorded 407 new contracting actions from Joint Contracting Command-Iraq (JCC-I/A), which obligated more than \$89 million. These contracting actions include modifications to existing contracts, as well as new task orders issued and contracts awarded. Of the \$89 million, more than \$5 million were IRRF obligations issued in 61 new contracting actions. Most of the contracting actions were funded

by the ISFF—179 actions obligating more than \$47 million.

To date, SIGIR has received 4,044 contracting actions into SIRIS, obligating \$12.8 billion. Of those actions, 1,677 have been funded by IRRF for obligations of more than \$5.3 billion.

Currently, no other U.S. information system tracks the \$16.3 billion in IRRF obligations. GRD-PCO plans to develop the capability as part of its newly integrated Iraq Reconstruction Management System (IRMS). See Section 3 for the audit, “Management of Iraq Relief and Reconstruction Fund Programs: The Evolution of the Iraq Reconstruction Management System.”

### Competition and Contracting Action Analysis

Analysis of SIRIS contract data uses two parameters: the total number of contracting actions and the total dollar value of contracting actions.

During reconstruction in Iraq, several acquisition strategies were implemented based on project requirements and constraints. For the first two quarters of FY 2006, contracting actions were awarded using primarily full and open competition. Table 2-16 lists the total value of contracting actions by competition type.

For FY 2003, several projects were generally broader in scope and were therefore funded by

contracts with flexible terms. Indefinite delivery, indefinite quantity (IDIQ) contracts have these flexible terms: they are awarded based on the total ceiling value that a contractor may receive. The contractor receives payment only for work on task orders issued under the overall IDIQ contract.

Beginning in FY 2005, the method of solicitation shifted from issuing task orders under large “umbrella” contracts to competi-

tive, supply-and-build direct contracts. Table 2-17 delineates, by fiscal year, the increased gap between the total number of task orders and contracts issued. Table 2-18 breaks out contracting actions by contracting office. For the current fiscal year, contracting actions have been primarily managed by the Joint Contracting Command-Iraq/Afghanistan (JCC-I/A).

## TOTAL VALUE OF CONTRACTING ACTIONS BY COMPETITION TYPE, AS OF MARCH 31, 2006 (IN MILLIONS)

COMPETITION TYPE	FY 2003	FY 2004	FY 2005	FY 2006 QUARTER 1	FY 2006 QUARTER 2	TOTAL
Full & Open	\$4,336.85	\$22,964.55	\$1,064.37	\$119.86	\$41.45	\$28,527.07
Sole Source	8,578.54	1,302.64	0.00	0.00	0.00	\$9,881.18
Not Available	69.32	1,468.18	207.74	28.04	1.51	\$1,774.79
Limited Competition	480.01	729.25	39.40	0.00	0.00	\$1,248.65
Set-aside Small Business	29.57	172.60	5.35	0.00	0.00	\$207.52
Small Disadvantaged	112.70	19.52	0.00	0.00	0.00	\$132.22
<i>Subtotal</i>	<i>13,606.99</i>	<i>26,656.73</i>	<i>1,316.85</i>	<i>147.90</i>	<i>42.96</i>	<i>\$41,771.44</i>
Dollars out of Date Range	0.00	0.00	0.00	0.00	0.00	\$141.85
<b>Total</b>	<b>\$13,606.99</b>	<b>\$26,656.73</b>	<b>1,316.85</b>	<b>\$147.90</b>	<b>\$42.96</b>	<b>\$41,913.29</b>

Note: The values above represent the potential “ceiling value” of contracts.

Table 2-16

## ANALYSIS OF CONTRACTING ACTIONS BY COMPETITION TYPE, AS OF MARCH 31, 2006

CONTRACTING ACTION	FY 2003		FY 2004		FY 2005		FY 2006	
	QUANTITY	% OF TOTAL	QUANTITY	% OF TOTAL	QUANTITY	% OF TOTAL	QUANTITY	% OF TOTAL
Contracts	32	53.33%	189	34.18%	1428	82.45%	371	81.72%
Task Orders	28	46.67%	364	65.82%	304	17.55%	83	18.28%

Department of State, Iraq Weekly Status, January 4, 2006, and March 29, 2006

Table 2-17

## ANALYSIS OF CONTRACTING ACTIONS BY CONTRACTING OFFICE, AS OF MARCH 31, 2006

CONTRACTING OFFICE	NUMBER OF CONTRACTING ACTIONS	% OF TOTAL CONTRACTING ACTIONS	TOTAL VALUE (IN MILLIONS)	% OF TOTAL CONTRACT VALUE
U.S. Army Corps of Engineers	220	5.44%	\$13,572.16	32.38%
Defense Contract Management Agency	888	21.96%	\$7,001.84	16.71%
Coalition Provision Authority	331	8.18%	\$5,555.47	13.25%
U.S. Department of State	12	0.30%	\$5,332.80	12.72%
U.S. Agency for International Development	56	1.38%	\$4,000.64	9.55%
NAVFAC	4	0.10%	\$1,701.34	4.06%
Projects and Contracting Office	1199	29.65%	\$1,031.35	2.46%
AMC	13	0.32%	\$666.59	1.59%
Joint Contracting Command Iraq-Afghanistan	1155	28.56%	\$558.00	1.33%
DCCW	44	1.09%	\$404.82	0.97%
HQ JMC	1	0.02%	\$303.53	0.72%
Pentagon Renovation Office	4	0.10%	\$297.58	0.71%
Ordinance and Engineering	5	0.12%	\$290.80	0.69%
NRCC General Support Division	10	0.25%	\$251.04	0.60%
Defense Contracting Command	2	0.05%	\$191.11	0.46%
U.S. Army Tank-automotive Armaments Command	24	0.59%	\$178.41	0.43%
AFCEE	10	0.25%	\$172.75	0.41%
Acquisition and Assistance Office	1	0.02%	\$119.07	0.28%
Communications Electronics Command	1	0.02%	\$75.00	0.18%
SPAWAR Systems Center	6	0.15%	\$60.87	0.15%
Army Contracting Agency	7	0.17%	\$46.04	0.11%
DITCO	16	0.40%	\$42.11	0.10%
Defense Information Systems Agency	11	0.27%	\$30.13	0.07%
Other	24	0.59%	\$29.84	0.07%
<b>Total</b>	<b>4044</b>	<b>100.00%</b>	<b>\$41,913.29</b>	<b>100.00%</b>

TABLE 2-18



## COST TO COMPLETE

Cost-to-complete (CTC) data helps to identify reconstruction sectors that are under-funded and helps to avoid exhausting budgets before project completion. U.S. agencies executing reconstruction projects are mandated by law to produce reliable cost-to-complete data. To do so, agencies must compare the amount budgeted for a project with current estimates of the final costs of the project to determine if there is a variance. This metric helps determine whether a project will run over its budget.

SIGIR reported on efforts to develop CTC data in its January 27, 2006 audit, “Methodologies for Reporting Cost-to-complete Estimates.” In the audit, SIGIR identified several challenges to consolidated reporting of the costs to complete projects, making several recommendations to U.S. reconstruction agency management. Table 2-19 provides the approximate consolidation of data reported by USAID and GRD-PCO into SIGIR progress report sectors. However, several issues prevent a clear accounting of the cost to complete projects in each sector:

- For some sectors (electricity, water, transportation and communications, and health care), the reported variance does not equal the mathematical difference between the authorized amount and the estimate at completion (EAC). This discrepancy occurs in both the GRD-PCO and USAID reports.
- For some sectors (electricity, water, transportation and communications, and health care), the variance reported in the Project Assessment Report (PAR) does not equal the mathematical difference between the authorized amount and the EAC. This discrepancy occurs because USAID uses an internally generated number—Project Identification Form (PIF)—in place of authorized amount in calculating variance.
- The values in the sector authorized amount field do not match the allocated (authorized) amounts for any sector reported in the April 2006 DoS *Section 2207 Report*. GRD-PCO and USAID’s explanation is that they report only construction projects, and they have deemed some projects to be non-construction, even in predominantly construction sectors.

As the reconstruction program moves toward completion in 2006-2007, SIGIR finds that the lack of consistent CTC data makes it impossible to accurately estimate the real costs to complete remaining Iraq reconstruction projects and programs. Thus, SIGIR cannot determine whether the remaining IRRF funds are sufficient to complete the U.S. reconstruction projects that are currently underway or those yet to start.

CONSOLIDATED IRRF COST-TO-COMPLETE REPORTS  
GRD-PCO AND USAID PROJECTS, AS OF MARCH 31, 2006  
(MILLIONS)

Sector	Authorized Amount	Estimate at Completion (EAC)
Electricity	\$3,605	\$3,520
Water	1,783	1,744
Oil and Gas	1,333	1,341
Security and Justice	1,059	1,022
Transportation and Communications	402	353
Democracy, Education, and Private Sector Development	111	109
Health Care	421	426

Note: Dollar totals are grouped by SIGIR-defined sectors.

Table 2-19



## SOURCES OF FUNDING FOR IRAQ RECONSTRUCTION

SIGIR is required to report on the oversight of, and accounting for, funds expended in Iraq relief and reconstruction, under P.L. 108-106, as amended. Three primary funding sources support reconstruction and relief activities: U.S. appropriated funds, international donor funds, and Iraqi funds.

To date, U.S. appropriated funds total more than \$31.9 billion, including:

- \$2.44 billion of reconstruction and relief funding authorized in April 2003 (IRRF 1)
- \$18.439 billion of reconstruction and relief funding authorized in November 2003 (IRRF 2)
- \$5.391 billion of funding approved in May 2005 to support the Iraqi Ministry of Defense and Ministry of Interior security forces (ISFF)
- 16 additional reconstruction and relief programs totaling \$5.63 billion

As of March 31, 2006, international donor pledges totaled \$14.7 billion—\$13.6 billion pledged at the 2003 Madrid Conference on Reconstruction in Iraq, and \$.98 billion in post-

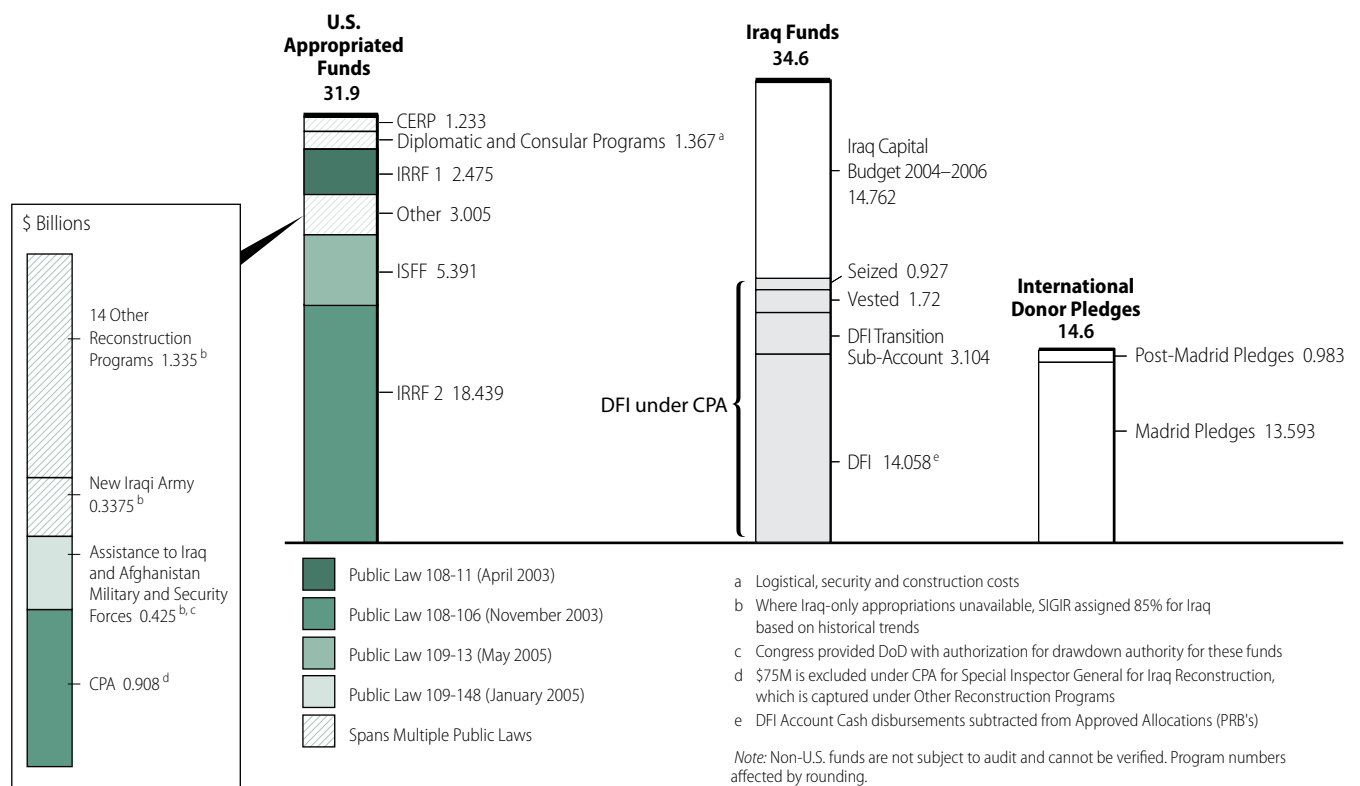
Madrid pledges. About 25% of these pledges—\$3.5 billion—have been expended.

Iraqi funds include vested and seized funds, the Development Fund for Iraq (DFI), and the Iraq Capital Budget. Iraqi funds have been an important source for relief and reconstruction efforts, particularly during the CPA's tenure. As of March 31, 2006, these funds total \$31.5 billion, including:

- vested (frozen) funds of \$1.72 billion
- seized funds, including confiscated cash and property, of just less than \$1 billion
- DFI funds, drawn primarily from oil proceeds and repatriated funds (more than 55% of the overall total Iraqi funds)
- budgeted Iraqi funding of \$14.762 billion, since 2004 (although much less has actually been expended)

Figure 2-40 provides an overview of all sources of Iraq reconstruction funding. More details are provided in Appendices B, C, and D.

Figure 2-40  
**SOURCES OF IRAQ RELIEF AND RECONSTRUCTION FUNDING—\$81.1 BILLION**  
 \$ Billions



### **U.S. Appropriated Funding**

Since the 2003 conflict in Iraq, the U.S. Congress has passed six bills to appropriate \$31.907 billion for Iraq reconstruction. As of mid-April 2006, the Congress was considering legislation that could add \$8.57 billion to this amount.

The largest funding activities associated with reconstruction were the two Iraq Relief and Reconstruction Funds (IRRF 1 and IRRF 2), created under P.L 109-11 and P.L 108-106 in 2003. As of April 2006, IRRF appropriations account for nearly two-thirds of the entire U.S. effort for reconstruction.

During the past three years, 19 funds have supported the rebuilding effort, principally administered by DoD, DoS, and USAID. These funds range from infrastructure development to refugee and migration assistance.

See Table 2-20 for a list of current U.S. appropriations for reconstruction and pending requests.

## U.S. APPROPRIATED FUNDS

FUNDING MECHANISM	EMERGENCY WARTIME SUPPLEMENTAL APPROPRIATIONS ACT, 2003	EMERGENCY APPROPRIATIONS ACT FOR THE DEFENSE AND FOR THE RECONSTRUCTION OF IRAQ AND AFGHANISTAN, 2004	DEPARTMENT OF DEFENSE APPROPRIATIONS ACT, 2005	EMERGENCY SUPPLEMENTAL APPROPRIATIONS ACT FOR DEFENSE, THE GLOBAL WAR ON TERROR, AND TSUNAMI RELIEF, 2005	APPROPRIATIONS FOR THE DEPARTMENT OF DEFENSE, FY 2006	APPROPRIATIONS FOR THE DEPARTMENT OF STATE, FY 2006	TOTAL APPROPRIATIONS	FY 2006 SUPPLEMENTAL APPROPRIATIONS REQUEST	FY 2007 BUDGET REQUEST (DoS/DoD)	TOTAL REQUESTS
	PL 108-11	PL 108-106	PL 108-287	PL 109-13	PL 109-148	PL 109-102				
Iraq Relief and Reconstruction Fund (IRRF 2)	16-Apr-03	6-Nov-03	5-Aug-04	11-May-05	4-Jan-05	4-Jan-05	\$18,439,000,000	16-Feb-06		
		\$18,439,000,000								
Iraq Security Forces Fund (ISFF)				\$5,391,000,000			\$5,391,000,000	\$3,703,000,000		\$3,703,000,000
Diplomatic and Consular Programs <sup>1</sup>	\$35,800,000		\$665,000,000	\$666,300,000			\$1,367,100,000	\$1,497,500,000	\$65,000,000	\$1,562,500,000
Economic Support Fund (ESF)					\$60,390,000		\$60,390,000	\$1,489,000,000	\$478,770,000	\$1,967,770,000
Iraq Relief and Reconstruction Fund (IRRF 1)	\$2,475,000,000						\$2,475,000,000			
Commander's Emergency Response Program (CERP)		\$140,000,000	\$718,000,000		\$375,000,000		\$1,233,000,000	\$378,000,000		\$378,000,000
Coalition Provisional Authority (CPA) <sup>2</sup>		\$908,000,000					\$908,000,000			
Department of State, International Narcotics Control and Law Enforcement (DoS/INL)	\$25,000,000						\$25,000,000	\$107,700,000	\$254,600,000	\$362,300,000
New Iraqi Army <sup>3</sup>		\$127,500,000	\$210,000,000				\$337,500,000			
Assistance to Iraq and Afghanistan Military and Security Forces <sup>3,e</sup>					\$425,000,000		\$425,000,000			
Natural Resources Risk Remediation Fund (NRRRF)	\$489,300,000						\$489,300,000			
USAID Administrative Expenses	\$21,000,000			\$24,400,000			\$45,400,000	\$119,600,000		\$119,600,000
International Disaster Assistance	\$143,800,000						\$143,800,000			
Combatant Commander Initiative Fund (CINC Initiative Fund) <sup>4</sup>	\$29,750,000	\$12,750,000	\$21,250,000	\$21,250,000	\$21,250,000		\$106,250,000	\$21,250,000	\$21,250,000	\$42,500,000
Special Inspector General for Iraq Reconstruction (SIGIR) <sup>4</sup>		\$75,000,000					\$75,000,000	\$24,000,000		\$24,000,000
Overseas Humanitarian, Disaster and Civic Aid <sup>1</sup>		\$17,000,000					\$17,000,000			
International Affairs Technical Assistance								\$13,000,000		\$13,000,000
Legal Activities and U.S. Marshals (Salaries and Expenses)								\$5,500,000		\$5,500,000

FUNDING MECHANISM	EMERGENCY WARTIME SUPPLEMENTAL APPROPRIATIONS ACT, 2003	EMERGENCY APPROPRIATIONS ACT FOR THE DEFENSE AND FOR THE RECONSTRUCTION OF IRAQ AND AFGHANISTAN, 2004	DEPARTMENT OF DEFENSE APPROPRIATIONS ACT, 2005	EMERGENCY SUPPLEMENTAL APPROPRIATIONS ACT FOR DEFENSE, THE GLOBAL WAR ON TERROR, AND TSUNAMI RELIEF, 2005	APPROPRIATIONS FOR THE DEPARTMENT OF DEFENSE, FY 2006	APPROPRIATIONS FOR THE DEPARTMENT OF STATE, FY 2006	TOTAL APPROPRIATIONS	FY 2006 SUPPLEMENTAL APPROPRIATIONS REQUEST	FY 2007 BUDGET REQUEST (DoS/DoD)	TOTAL REQUESTS
United States Agency for International Development, Office of Inspector General (USAID OIG)	\$3,500,000	\$1,900,000		\$2,500,000			\$7,900,000	\$2,500,000		\$2,500,000
Department of Treasury (Salaries and Expenses)								\$1,300,000		\$1,300,000
DoD Office of the Inspector General								\$1,120,000		\$1,120,000
Military Construction <sup>5</sup>					\$341,900,000		\$341,900,000	\$347,700,000		\$347,700,000
Department of State Office of the Inspector General								\$1,000,000	\$1,000,000	\$2,000,000
Migration and Refugee Assistance								\$20,000,000		\$20,000,000
Emergency Refugee and Migration Assistance	\$37,000,000						\$37,000,000			
Non-Proliferation, Anti-Terror- ism, and Demining (NADR)								\$16,630,000		\$16,630,000
International Military Education and Training									\$1,185,000	\$1,185,000
<b>TOTAL</b>	<b>\$3,260,150,000</b>	<b>\$19,581,150,000</b>	<b>\$1,036,250,000</b>	<b>\$6,823,450,000</b>	<b>\$1,163,150,000</b>	<b>\$60,390,000</b>	<b>\$31,907,540,000</b>	<b>\$7,726,670,000</b>	<b>\$860,935,000</b>	<b>\$8,570,605,000</b>

<sup>1</sup>Logistical, security and construction costs

<sup>2</sup>Excludes \$75M for SIGIR under P.L. 108-106

<sup>3</sup>Where Iraq-only appropriations unavailable, based on historical trends SIGIR split 85% for Iraq and 15% for Afghanistan

<sup>4</sup>CPA Operating Expenses under PL 108-106

<sup>5</sup>As identified in GRD bi-weekly reports

<sup>6</sup>Congress provided DoD with authorization for drawdown authority for these funds

TABLE 2-20

## International Donor Funds

Funds pledged by non-U.S. bilateral donors and international institutions comprise the third source of funding for Iraq's reconstruction and development. As of the end of March, 2006, \$14.58 billion had been pledged, and approximately \$3.5 billion (25%) had been expended.<sup>326</sup>

### HISTORY OF DONOR ACTIVITY

International donors and non-governmental organizations (NGOs) were active in Iraq for more than a decade before the start of hostilities in 2003. Several UN organizations in Iraq were monitoring the Oil-for-Food Program and conducting basic humanitarian and development work, particularly in the three northern Kurdish provinces. As the war approached, UN organizations and NGOs prepared for various humanitarian contingencies—particularly food shortages and refugee movements—using funding from international donors, including the United States.

Shortly after the war, in June 2003, donors met in New York to begin preparing for a major pledging conference to be held in Madrid in October 2003. In the next few months, donors held several meetings to plan for the conference, designing what would become the International Reconstruction Fund Facility for Iraq (IRFFI), based on the experiences of other multi-donor trust-fund models, including Afghanistan. During that same period, the United States sent high-level

delegations to various key donor nations to urge generous grant support for Iraq.

Table 2-21 shows donor pledges by nation as of March 31, 2006.

The United States, 28 other nations, the World Bank, and the International Monetary Fund (IMF) have pledged a total of \$33 billion in grants and loans for 2004-2007. Of this total, \$13.5 billion was pledged by donors other than the United States:

- \$8.4 billion by other governments
- \$5.1 billion by the World Bank and the IMF

The World Bank pledged between \$3-\$5 billion, including \$500 million in International Development Association (IDA) loans; the IMF pledged \$2.55-\$4.25 billion. The lower end of each of these number sets was used in tabulating the total.

Most of the pledges—\$22.1 billion—were for grant assistance, \$9.625 billion were for loans, and \$335 million were unspecified. The United States strongly encouraged grant assistance, because it can be expended more quickly and would not add to Iraq's already considerable debt burden. Since the Madrid Conference, new pledges total \$911 million:

- European Commission, \$480 million (in two \$240 million tranches for 2005 and 2006)
- Islamic Development Bank, \$300 million (soft loans)
- Denmark, \$40 million
- Germany, \$10 million
- Australia, \$31 million

## PLEDGES OF RECONSTRUCTION AID TO IRAQ BY COUNTRY, AS OF MARCH 31, 2006

Donor	Original Madrid Pledge October 2003	Additional Pledges Since Madrid Conference	Total Pledges March 2006
Australia	\$ 45,590,974	\$ 31,000,000	\$ 76,590,974
Austria	5,478,165		5,478,165
Belgium	5,890,500		5,890,500
Bulgaria	640,000		640,000
Canada	187,466,454		187,466,454
China	25,000,000		25,000,000
Cyprus	117,810		117,810
Czech Republic	14,659,023		14,659,023
Denmark	26,952,384	40,000,000	66,952,384
Estonia	82,467		82,467
Finland	5,890,500		5,890,500
Germany	-	10,000,000	10,000,000
Greece	3,534,300		3,534,300
Hungary	1,237,005		1,237,005
Iceland	2,500,000		2,500,000
India	10,000,000		10,000,000
Iran	5,000,000	5,000,000	10,000,000
Ireland	3,534,300		3,534,300
Italy	235,620,020		235,620,020
Japan	4,914,000,000	50,000,000	4,964,000,000
Korea	200,000,000		200,000,000
Kuwait	500,000,000	65,000,000	565,000,000
Lithuania	-	30,000	30,000
Luxembourg	2,356,200		2,356,200
Malta	27,000		27,000
Netherlands	9,424,801		9,424,801
New Zealand	3,351,975	990,000	4,341,975
Norway	12,867,617		12,867,617
Oman	3,000,000		3,000,000
Pakistan	2,500,000		2,500,000
Qatar	100,000,000		100,000,000
Saudi Arabia	500,000,000		500,000,000
Slovenia	419,382		419,382
Spain	220,000,000		220,000,000
Sri Lanka	-	75,500	75,500
Sweden	33,000,000		33,000,000
Turkey	50,000,000		50,000,000
United Arab Emirates	215,000,000		215,000,000
United Kingdom	452,326,416		452,326,416
United States	10,000,000		10,000,000
Vietnam		700,000	700,000
<b>Subtotal</b>	<b>7,807,467,293</b>	<b>202,795,500</b>	<b>8,010,262,793</b>
European Commission	235,620,000	480,000,000	715,620,000
<b>Subtotal</b>	<b>8,043,087,293</b>	<b>682,795,500</b>	<b>8,725,882,793</b>
<b>International Financial Institutions</b>			
IMF (low range)	2,550,000,000		2,550,000,000
World Bank (low range)	3,000,000,000		3,000,000,000
Islamic Development Bank	-	300,000,000	300,000,000
<b>Subtotal</b>	<b>5,550,000,000</b>	<b>300,000,000</b>	<b>5,850,000,000</b>
<b>Total Donor Assistance</b>	<b>\$13,593,087,293</b>	<b>\$982,795,500</b>	<b>\$14,575,882,793</b>

TABLE 2-21

Source: U.S. Department of State

Note: Data not formally reviewed, audited, or verified.

Pre-Madrid pledges for humanitarian assistance are not included in this table.

Japan also spent an additional \$50 million in grant aid beyond its \$1.5 billion pledge.

Up to this point, no single entity has been responsible for tracking donor pledges and expenditures. However, donors recently requested the World Bank to undertake an update on the status of pledges that were made at Madrid.

The Madrid Conference formally endorsed IRFFI, which comprised two trust funds—one managed by the World Bank and the other by the UN. IRFFI provided a structure through which donors could channel their assistance, if they did not wish to establish a bilateral mission in Iraq or if they wanted to support larger projects through a multilateral effort. A committee of 18 donors, 16 who have contributed at least \$10 million (and two representatives of smaller donors), advise the World Bank

and UN on the management of IRFFI. Table 2-21 lists the member countries. Most of the smaller bilateral donors have disbursed their pledges through the trust funds; larger bilateral donors—such as the United States, United Kingdom (UK), and Japan—also contributed to the trust funds.

The donor committee has met four times since Madrid, each time in conjunction with a broader donor gathering. At the first meeting in Abu Dhabi in February 2004, about \$1 billion from the Madrid pledges were promised to the trust funds, which were then formally launched. Japan was selected to chair the donor committee. For a list of IRFFI commitments and deposits as of April 20, 2006, see Table 2-22.

In 2004 and 2005, donors conducted three more meetings: at Doha, Qatar; Tokyo, Japan;

#### INTERNATIONAL RECONSTRUCTION FUND FACILITY FOR IRAQ DONOR COMMITTEE MEMBERS

Canada (Chair)	Kuwait
United Kingdom	Iran
Italy	Norway
India	Korea
Turkey*	Qatar
Sweden	Spain
Finland*	European Commission
Japan	United States
Australia	Denmark

\*Rotating members

Table 2-21



and the Dead Sea, Jordan. The next meeting is expected to be scheduled shortly after the new Iraqi government is in place. In March 2006, representatives of the donor committee met with World Bank and UN officials in Washington to review IRFFI developments—particularly the ongoing external evaluation of World Bank and UN trust fund activities designed to determine the effectiveness of IRFFI planning and implementation. The meeting also proposed to extend the life of IRFFI from the end of 2007 to the end of 2010.

### **PROMOTING DONOR COORDINATION**

During the last three years, all donors, particularly those with bilateral programs, have been increasingly interested in better coordinating their programs, both among themselves and with the Iraqi authorities, to avoid duplication of effort and to ensure that their priorities adequately reflect Iraq's needs. Although the donor meetings provide a valuable opportunity for consultation and coordination, all agreed that more needed to be done to coordinate in Iraq.

To meet this need, the Baghdad Coordination Group was established after a decision reached at the donors meeting at the Dead Sea, Jordan, in July 2005. Chaired by the Minister of Planning, the group meets periodically to discuss a variety of reconstruction issues and to share information on the progress of projects and programs. On February 27, 2006, a special session of the group was called to discuss reconstruction of the damaged Al-Askari

Mosque in Samarra. The group agreed that the UN would prepare a plan for international assistance to Iraqi efforts to rebuild the shrine and other damaged religious sites. There are also sector working groups in health, education, electricity, oil, and rule of law—each chaired by the appropriate Iraqi minister and a supporting donor. Similar donor coordination groups meet in regional cities, such as Basrah and Mosul.

Donors, including the World Bank and the UN, submit proposed projects to the Iraqi Strategic Review Board (ISRB), chaired by the Ministry of Planning and Development Cooperation. The ISRB gives the planning ministry visibility on projects proposed for the various line ministries and helps ensure that the overall resources implications are taken into account. (The United States has not, as a rule, submitted its proposed projects to the ISRB, in part because the sheer number of U.S. projects would overwhelm the board's capacity to review projects on a timely basis.)

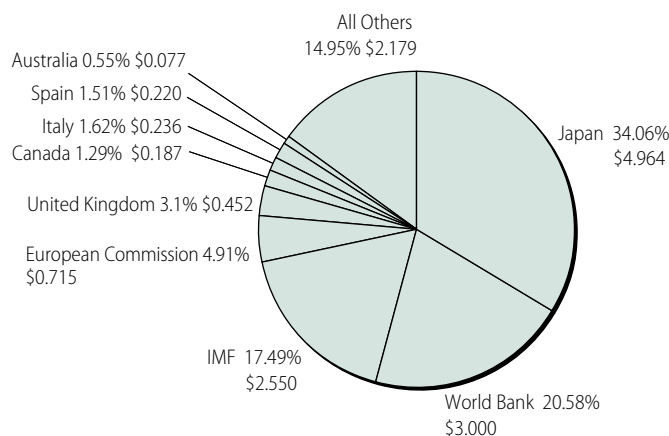
Another tool to promote donor coordination is the UN-sponsored Donor Assistance Database (DAD), funded in part by the United States, which is now operational and maintained by a newly established directorate in the Ministry of Planning. The database is populated with data on projects totaling more than \$8.5 billion; however, more data needs to be added if the DAD is to reflect all current projects. Ministry of Planning officials have said that they expect the DAD to become key to future Iraqi management of foreign assistance flows.

### MAJOR BILATERAL AND MULTILATERAL PROGRAMS

The United States is actively encouraging other donors to implement their pledges as soon as possible. Figure 2-41 shows a breakout of other pledges by donor.

Since before the Madrid Conference, DoS has chaired a monthly teleconference of key donors and Iraqi officials to exchange information and respond to donor concerns. Coalition partners with a military presence in Baghdad, like the United Kingdom (UK) and Australia, have found it easier to establish an aid mission in Baghdad. In coordination with the Iraqi Ministry of Planning and Development Cooperation, the U.S. Embassy-Baghdad has set up working and living accommodations on

Figure 2-41  
**PLEDGES FROM INTERNATIONAL DONORS—\$14.58 BILLION**  
Dollars in Billions  
Source: DoS as of March 2006



a reimbursable basis in a “donor village” in the PCO compound in the International Zone in Baghdad, which is now used by representatives from the EU, Canada, the World Bank, and others.

Both the World Bank and the UN reconstruction and development assistance mission have been constrained by security concerns since the UN headquarters was destroyed by a truck bomb in August 2003. The bombing killed the UN Secretary General’s representative and 25 other UN staffers. The UN presence in Iraq is primarily in support of the political mission, although assistance officials make periodic trips into Iraq. The World Bank is represented by a contract staffer in the International Zone, and by Iraqi staff and consultants outside the International Zone. Plans to open a mission are under review pending resolution of security concerns.

### Japan

Japan pledged \$5 billion at Madrid:

- \$1.5 billion in grant funds, of which \$490 went to the IRFFI trust fund
- \$3.5 billion in concessional (soft) loans
- \$50 million to international organizations, such as the UN Development Programme (UNDP), Iraqi institutions and NGOs, and direct bilateral projects

Japanese funds have been used in the power, health, water, and sanitation sectors; for repairing roads; and for training and capacity build-

ing. Japan has provided hundreds of police vehicles, ambulances, and fire trucks. Japanese NGOs have been active in Al-Muthanna governorate, where Japanese troops are rehabilitating schools, health clinics, and hospitals.

On March 28, 2006, Japan announced its decision to extend concessional loans up to \$655 million for three projects:

- Umm Qasr Port Sector Rehabilitation Project (\$259 million)
- Irrigation Sector Loan (\$81 million)
- Al Mussaib Thermal Power Plant Rehabilitation Project (\$315 million)

Japan is continuing discussions with Iraq on the use of the remainder of the \$3.5 billion concessional loan program that it pledged in Madrid. Japan’s assistance officials are based in Amman; its programs are implemented and monitored by contractors.<sup>326a</sup>

### United Kingdom

The UK pledged \$452 million at Madrid of which \$392 million has been disbursed:

- \$127 million to IRFFI—\$71 million to the World Bank, \$56 million to the UN
- \$265 million to bilateral projects

Together with the \$468 million provided for humanitarian relief, before Madrid, UK contributions total \$920 million.

The UK Department for International Development (DFID) is responsible for implementing bilateral projects and has personnel

both in Baghdad and Basrah. Working with the UK forces in the four southern governorates, DFID has supported rehabilitation of basic infrastructure, capacity development of provincial and local governments, civil society institutions, and independent media. In Baghdad, the UK has been working to improve the basic organizational structure and functions of government and to advise on key economic reforms. The UK has also trained dozens of Iraqi officials.<sup>326b</sup>

#### **Canada**

Canada pledged \$187 million at the Madrid Conference, of which \$92.8 million has gone to the IRFFI trust funds. Canada's focus is on reconstructing socio-economic infrastructure, including basic education, primary health care, clean water and sanitation, governance, civil society, and capacity building. Canada has contributed about \$15 million to the security sector, including police training. Canada is active in donor coordination, currently chairing the IRFFI Donor Committee.

In response to the UN Humanitarian Appeal before the war, Canada also provided an additional \$42 million, bringing its total contribution to \$230 million.<sup>326d</sup>

#### **Australia**

Australia pledged \$46 million at the Madrid conference, of which \$31 million was committed to the IRFFI trust funds. Before Madrid, Australia had pledged \$55 million to meet Iraq's immediate humanitarian needs. Accord-

ing to the AusAid website ([www.ausaid.gov.au](http://www.ausaid.gov.au)), Australia has budgeted another \$31 million for 2006, bringing the total to \$132 million.

Australia's reconstruction assistance focuses on the agricultural sector to promote food security, market-based pricing, higher yields, better agricultural support services, and agricultural research. Australia has provided technical assistance to the Ministry of Agriculture, trained many officials from the ministry, and provided police training, election support, aid to internally displaced persons, and governance support.<sup>326c</sup>

#### **Italy**

Italy pledged \$240 million in Madrid for 2003-2007, of which \$80 million have been allocated, including \$12 million to the IRFFI UN trust fund. Italy has been active in the health care sector, contributing to the Italian Red Cross, basic infrastructure development, and local governance in areas in the south where Italian troops are stationed. Italy also provides a wide variety of training courses for Iraqis, electoral assistance, and cultural and archaeological activities. Italian officials estimate that they have spent up to 30% of their funds on security.

#### **Spain**

Spain pledged \$220 million at Madrid for 2004-2007, in addition to the \$80 million it had provided for humanitarian assistance in early 2003. Of this, \$42.4 million has been

## TOTAL IRRFI DONOR CONTRIBUTIONS AND WORLD BANK IRAQ TRUST FUND ALLOCATIONS

DONOR	COMMITMENTS		DEPOSITS	
	WORLD BANK	UNITED NATIONS	WORLD BANK	UNITED NATIONS
Australia	\$16,100,000	\$13,457,000	\$16,100,000	\$13,457,000
Australia (Dept of Immigration)	-	3,292,000	-	3,292,000
Austria	-	3,292,000	-	3,292,000
Belgium	-	1,321,000	-	1,321,000
Canada	22,300,000	46,400,000	22,300,000	46,400,000
Denmark	-	10,046,000	-	7,693,000
Finland	2,600,000	6,234,000	2,600,000	6,234,000
Greece	-	3,630,000	-	3,630,000
Iceland	1,000,000	500,000	1,000,000	500,000
India	5,000,000	5,000,000	5,000,000	5,000,000
Ireland	-	1,226,000	-	1,226,000
Italy	-	29,782,000	-	29,782,000
Japan	130,000,000	360,951,000	130,000,000	360,951,000
Kuwait	5,000,000	5,000,000	5,000,000	5,000,000
Luxembourg	-	200,000	-	200,000
Luxembourg (EURO)	-	2,119,000	-	200,000
Netherlands	6,200,000	6,697,000	6,200,000	6,697,000
New Zealand	-	3,365,000	-	3,365,000
Norway	6,700,000	7,009,000	6,700,000	7,009,000
Qatar	5,000,000	5,000,000	2,500,000	5,000,000
Republic of Korea	4,000,000	11,000,000	4,000,000	11,000,000
Spain	20,000,000	20,000,000	20,000,000	20,000,000
Spain	-	2,380,000	-	2,380,000
Sweden	5,800,000	10,622,000	5,800,000	10,622,000
Turkey	1,000,000	200,000	1,000,000	200,000
United Kingdom	71,400,000	55,542,000	71,400,000	55,542,000
United States	5,000,000	5,000,000	5,000,000	5,000,000
European Commission (RRM)	-	25,142,000	-	23,573,000
European Commission (Human Rights)	-	7,307,000	-	6,937,000
European Commission	149,800,000	283,724,000	149,800,000	266,615,000
<b>Total non-U.S. Donor Assistance</b>	<b>\$456,900,000</b>	<b>\$935,438,000</b>	<b>\$454,400,000</b>	<b>\$912,118,000</b>

Source: [www.irffi.org](http://www.irffi.org)  
Table 2-22

deposited in the IRRFI trust funds, \$20 million to the World Bank, \$22.4 million for the United Nations, and \$5 million with the IFC's Small Business Financing Facility. Spain's bilateral activities have supported production of the new Iraqi dinar, training of security forces, medical equipment, and rule-of-law training.

### The European Commission

The European Commission (EC) has pledged assistance on an annual basis, \$240 million at Madrid and two subsequent tranches of \$240 million. Before the war, the EC provided \$120 million of humanitarian assistance through the

European Community Humanitarian Office (ECHO), then \$19.8 million more to support the January 2005 elections, for a total \$849.8 million.<sup>326e</sup>

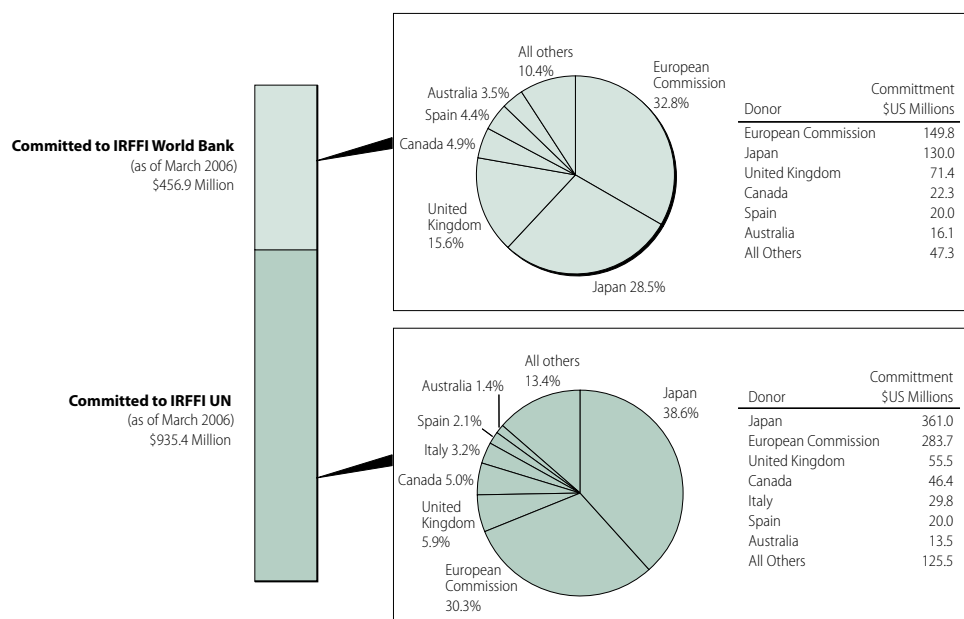
The EC was one of the early promoters of establishing a multi-donor instrument for channeling the international support to the reconstruction process in Iraq. It has channeled the bulk of its assistance (\$434 million thus far) through the IRRFI trust funds. The main focus has been on rehabilitating basic services in water and sanitation, health, electricity, education, and income generation.<sup>1</sup>

Figure 2-42

#### INTERNATIONAL DONOR CONTRIBUTIONS TO IRRFI

As of March 2006

Source: www.irrfi.org



The 2005 EC Assistance Program is firmly anchored in the overall medium-term strategy for Iraq outlined in the Commission's Communication of June 9, 2004 (*The European Union and Iraq—a framework for engagement*).<sup>2</sup> In 2006, the EC assistance program will be guided by the principle of Iraqi ownership and Iraqi partnership. The Assistance Program also aims to respond to the framework and policy priorities conveyed in Iraq's National Development Strategy (NDS) presented at the Dead Sea donors conference, and to complement activities of other major donors. Figure 2-42 shows a breakout of donor commitments.

### World Bank

The World Bank trust fund has received \$454 million from 17 donors. Ten projects totaling \$385 million have been approved, and one has been completed. Eight of the ten projects are being implemented by Iraqi ministries and municipalities. World Bank supervision of projects relies on Iraqi staff and consultants,

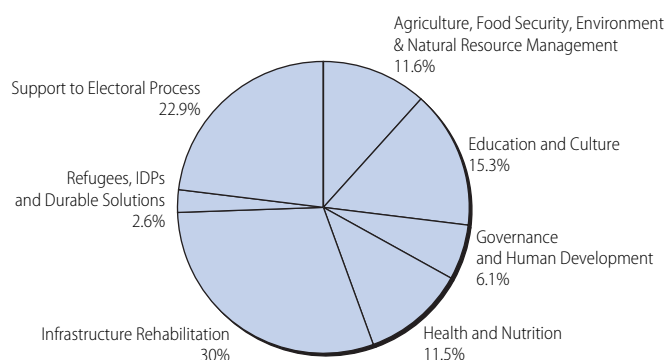
supported by World Bank staff working out of Jordan and Washington who regularly video-conference with Iraqi ministries. The World Bank provides Iraqi government staff with extensive training in procurement, financial management, and project management. World Bank projects have focused on building capacity, supplying textbooks, and rehabilitating infrastructure (schools, health units, irrigation systems, and water supply and sanitation). The objective is to help Iraq build better institutional frameworks, policies, and systems to improve the efficiency and effectiveness of both national expenditures and international aid.

In addition to the trust fund, the World Bank has approved \$100 million in concessionary IDA loans for a Third Emergency Education Project and is working closely with the government to prepare an additional \$400 million in IDA-financed projects to support improvements in transportation, electricity, and water supply and sanitation. Iraq became eligible for IDA loans in December 2004, when it cleared its arrearages with the World Bank. Iraq's eligibility for loans from the International Bank for Reconstruction and Development depends on its creditworthiness, which includes political stability and security, economic recovery, and implementation of debt relief.

### United Nations

The UN trust fund has \$906 million in deposits from 24 donors. It supports 16 UN implementing agencies. The trust fund has approved \$759 million for 83 projects, all of which have been approved by the Iraqi Strategic Review Board.

Figure 2-43  
**UNDG IRAQ TRUST FUND**  
Approved and Funded Projects by UN Cluster as of 3/31/06  
Source: [www.irffi.org](http://www.irffi.org)



A total \$573 million has been obligated for these projects, and \$451 million has been expended. UN staff who manage the Iraq programs are located offshore in Amman, Nicosia, and Kuwait; senior officials travel regularly to Baghdad. Programs are implemented by a network of more than 1,000 national staff who were trained by UN employees before the war. UN contracting is done on the Internet for efficiency and transparency.

In a departure from past practice when projects were implemented by individual UN agencies, the UN has organized the program in clusters. The relevant UN agencies work together under a cluster lead agency. Most UN funding has gone to UNDP and UN Office for Project Services (UNOPS); major sectors are election support/governance, infrastructure rehabilitation, education, health, and agriculture/food security.

Figure 2-43 shows the UN Development Group (UNDG) Iraq Trust Fund by UN cluster.<sup>326f</sup>

### **International Monetary Fund**

At the Madrid donors conference, the IMF pledged to make available to Iraq more than \$2.55 billion in loans. On September 29, 2004, the IMF Board approved an Emergency Post-Conflict Assistance (EPCA) package to provide Iraq \$436 million in balance-of-payments support. The main goals were to maintain macroeconomic stability, lay the groundwork for the development of a reform program that could be undertaken in years to come, and begin the process of restoring Iraq's fiscal and external debt sustainability.

On December 23, 2005, the IMF Board approved a historic Stand-by Arrangement (SBA) for Iraq that

provides approximately \$685 million in balance-of-payments support, of which a first tranche of \$114 million has been made available. The 15-month SBA provides a comprehensive framework of policies intended to ensure continued economic stability. The IMF has also been providing technical assistance to Iraq, including training in these macroeconomic policy areas:

- public expenditure management
- fiscal federalism
- tax policy
- tax and customs administration
- monetary operations
- banking supervision
- payments system reform
- statistics

Some of this training has been done jointly with the World Bank.

### **Islamic Development Bank**

At the Dead Sea donors meeting in Jordan, the Islamic Development bank agreed to make \$300 million in concessional financing available to Iraq.

### **Support from Iraq's Neighbors**

Iraq's neighbors pledged generously at Madrid, but little of the promised funds have yet been expended despite regular demarches by U.S. and other coalition officials. Kuwait is reportedly active in small-scale humanitarian programs in the south but has not moved much of its \$565 million pledge. Similarly, Saudi Arabia and the United Arab Emirates are holding off on expenditures. Further, Saudi Arabia and Kuwait believe they have been supportive in



other ways, as suppliers of fuel, and Jordan has supported police training and provides a major supply route into Iraq. Turkey has not reported disbursements of the \$50 million pledge at Madrid, but the Turkish private sector is very active in reconstruction in the Kurdish areas.<sup>326h</sup>

### **Iraqi Funds**

The Iraqi government has funded reconstruction activities since the transfer of governance authority. In addition to donor funds and the Iraqi oil revenues dedicated to reconstruction activities during the CPA administration, the Iraqi government draws on three sources of funding:

- the Iraqi National Budget
- commercial borrowing
- international donors

#### **THE IRAQI NATIONAL BUDGET**

Iraq has significant capacity to contribute to its reconstruction. The government's capital budget for 2004, 2005, and 2006 totals \$14.762 billion. For a year by year breakdown see figure 2-44.

The Iraqi government has been slow to release these funds, according to DoS, for two reasons. First, line ministries have limited capacity to implement reconstruction projects. Second, the Iraqi Ministry of Finance closely controls spending because of concern about the volatility of oil revenues.

#### **COMMERCIAL BORROWING**

International borrowing is another potential source of funds for the Iraqi government. Iraq has made considerable progress settling Saddam-era debt, a likely precondition to further borrowing. Iraq's creditors fall into two general categories—Paris Club members and non-Paris Club members:

- In November 2004, Iraq and the Paris Club came to an agreement to forgive 80% of Iraq's debt. Nearly all of the members of the Paris Club have concluded the required bilateral agreements under the agreement, which covered more than \$40 billion. By April 2006, Iraq had settled \$18.4 billion in commercial claims, out of an estimated total of \$22 billion.
- Non-Paris club creditors, including neighboring Arab states, hold an estimated \$60 billion in Iraqi debt; Iraq must settle with these creditors on terms comparable to the Paris Club agreement. Iraq has signed only five bilateral deals with non-Paris Club creditors.

Borrowing on international capital markets will not be a practical option for Iraq for some years to come. Even after settling the Paris Club debt and the non-Paris Club debt on similar terms, Iraq will still have a large debt burden of 20% of the roughly \$120-125 billion in Saddam-era debt.

#### **LOANS FROM INTERNATIONAL DONORS**

For Iraq, the best source of lending is the assistance offered by donors at the Madrid Donors Conference:

- Japan: \$3.5 billion in concessional<sup>327</sup> loans
- Saudi Arabia: \$1.0 billion in trade credits and loans
- World Bank: \$3-5.0 billion in loans (\$500 million concessional)

If all of these loans were activated, an additional \$2 billion would be available for reconstruction beyond the \$33 billion recorded at Madrid. The Madrid totals were calculated at the low end of the World Bank pledge.

Figure 2-44  
**CAPITAL BUDGET ALLOCATIONS**  
\$ Billions

